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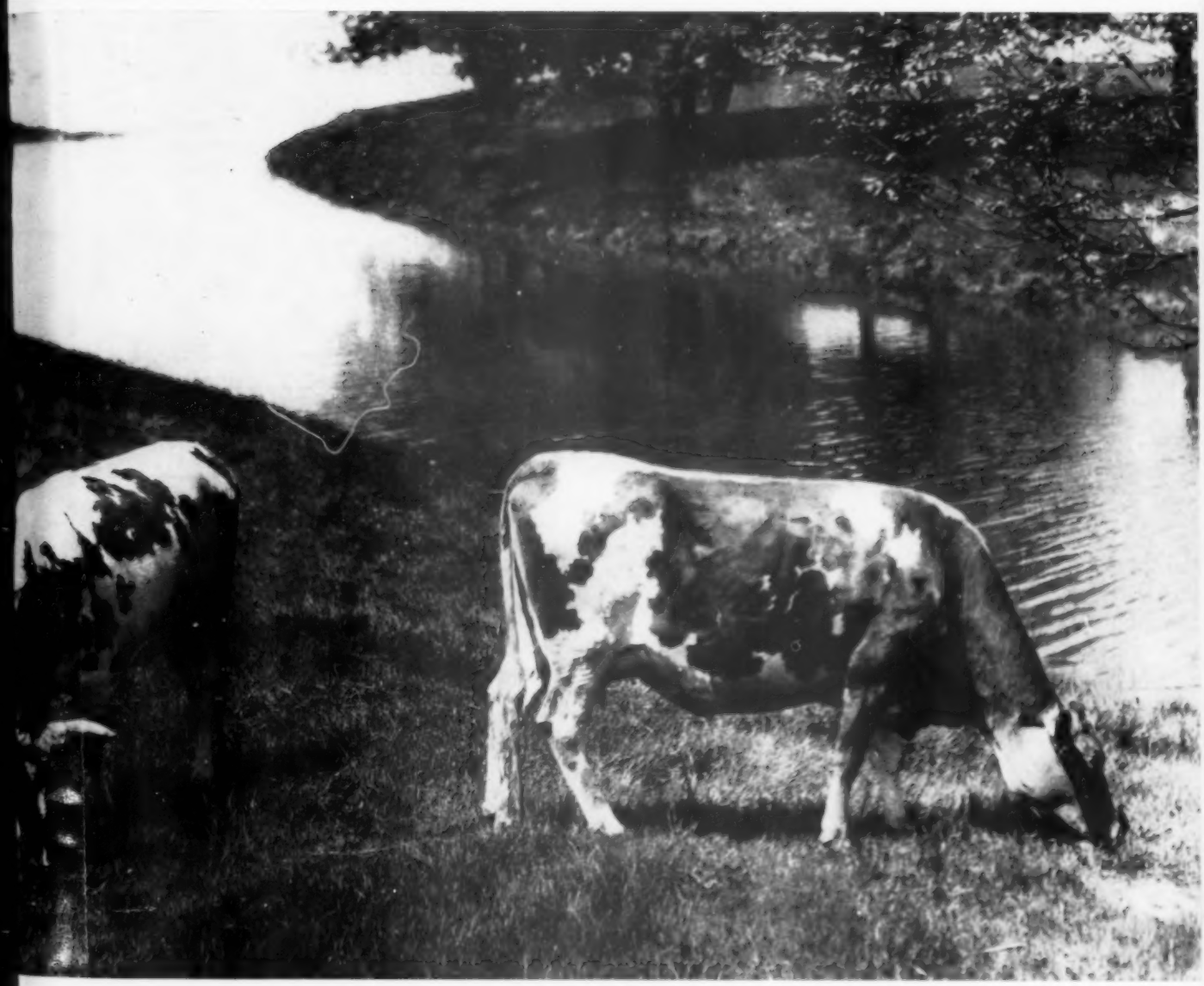

JANUARY 1939

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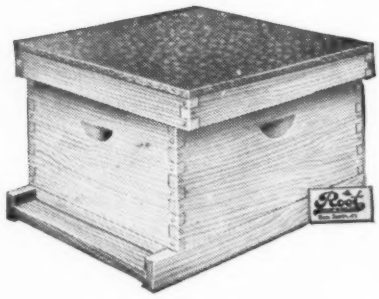

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CATALOGED
JAN 29 1939

AMERICAN BEE JOURNAL

The Oldest Bee Journal in the English Language

ESTABLISHED BY SAMUEL WAGNER IN 1861

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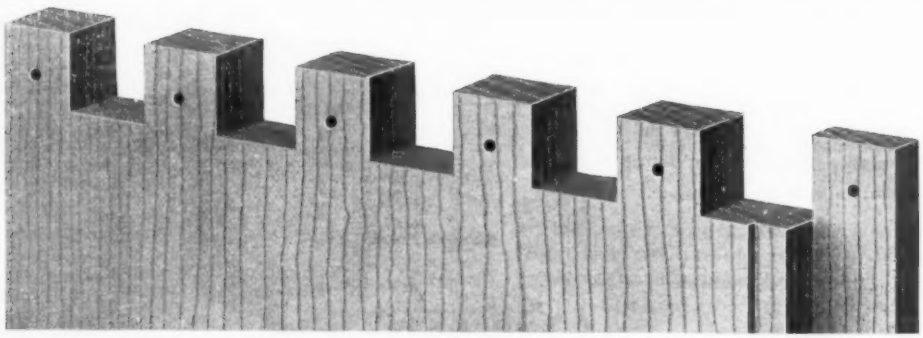
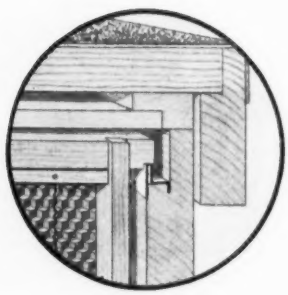
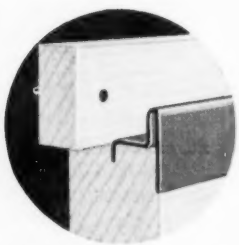




Metal covers have heavy roof boards. Above cut shows hive cross section.



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American Bee Journal

Vol. LXXIX—No. 1 Hamilton, Illinois, January, 1939 Monthly, $1.00 a year

Welcome 1939

ONCE again we start a new year. The American Bee Journal begins the seventy-ninth volume of its publication. In the years that have past much of the history of the beekeeping industry has been recorded in its pages and the passing of the men who have made this history has been noted as one after another they have passed away.

We are looking forward to important advances in the months ahead and anticipate substantial growth in honey production. Many young men are entering the field and they in turn will add their contribution as the years pass. Nothing is completed, always there is continued activity and the only thing we can look forward to with certainty is change.

With the coming of a new year let us wipe the old slate clean and make a new start, confident of doing a better job. Forgetting the errors of the past let us take up our tasks secure in the thought that better days lie ahead. To all we extend best wishes for a Happy New Year.

———————*ABJ*———————

Now is the Time

WITH a larger crop of honey for 1938 than we thought we had early in the fall and a hesitation in the demand, awaiting for business conditions to improve, it becomes more imperative than ever that the advertising of honey be continued and increased if we are to reap the rewards to which we are entitled for our crops.

The American Honey Institute has been doing a wonderful work in bringing honey to the attention of the public, but during the past year sufficient funds have been lacking. A satisfactory job has been done considering the amount of money that has been available. The Institute is ready to go forward with renewed energy and in new fields if it receives the support of the honey producer and allied interests as it should.

Elsewhere in this number appears a report of the Institute's annual meeting and the new setup for 1939. If you have not already sent in your contribution or pledge to the American Honey Institute, you should do so at once. The advertising of honey through agencies already established and through publications which only the Institute can reach is of prime importance. If it is to be done thoroughly, the Institute should have our united financial support. *Now is the time* to help.

One of the most effective bits of advertising we have yet undertaken, was the publishing of honey recipes in newspapers. Once each week, in addition to other regular advertising, appeared an exceptionally good, thoroughly proved recipe—from Nielsen's Apiaries. Complete directions for combining and baking or cooking were given, no necessary detail being omitted in order to hold down advertising costs. Correct procedure in baking or cooking is particularly essential in honey cookery, especially to the uninitiated.

Most women are willing, even eager, to try using honey in cooking provided they are shown how. We gave them a variety of good recipes to choose from—salads, muffins, cookies, cup cakes, gingerbread, etc.

Too much emphasis cannot be placed on the value of good recipes. It is the repeated use of perhaps small amounts of honey that will continue to help beekeepers dispose of larger crops.

Numerous women enthusiastically told me how well pleased they were upon trying the recipes. A completely satisfied user of honey is the best kind of an advertisement—especially if it be a woman. For one of women's weaknesses is the exchange of good recipes.

The newspaper is a most effective and comparatively inexpensive medium of advertising for through its pages we may contact thousands of people.

Mrs. Benjamin Nielsen,
Nebraska.

♦

Under the new reciprocal trade agreement with the United Kingdom, the rate of duty on honey has been changed from 7 shillings per hundredweight to 5 shillings per hundredweight; or from 15½ per cent ad valorem to 11.1 per cent ad valorem.

There are many items on the concessions under this agreement on imports into the United Kingdom which should in the end, bring about a great increase in the trade between the British Empire and the United States.

Two years ago in October an amazing test in malnutrition of children began here in Indiana. Here are the details. Others may profit by them.

In October, two years ago, we sold thirty pounds of honey to a lady living thirty miles from us. The honey was for her son, an eleven-year old boy in whom diabetes had developed to such an extent that his hands were covered with sores and he wore gloves to hide them from sight. He was small and undernourished.

The family promised close cooperation and they certainly were loyal. The boy was given medical treatment (not insulin) and placed on a diet of whole grain cereals, fruits and fresh vegetable, with little meat and no pie, cake or candy, using only honey to sweeten his food (No sugar or saccharin).

During this time even the fruits canned for him were prepared with honey and when extra sweets were needed they used honey candy. He used about ninety pounds of honey during the year.

In a little over a year the report came that the boy was progressing splendidly, the sores on the hands disappeared, and any wound which he may get heals quickly. He has grown like the proverbial weed and put on weight, and his parents say that he is so full of pep and vim that they can't hardly live with him. They are so pleased with the result that they, of course, have added more honey for the boy.

This is just another example of what correct diet can do.

Mrs. J. Lake Macdonald,
Indiana.

♦

I am looking upon 1939 as a "go forward" year and I have made these resolutions which I hope to keep:

I will expand to the limits of reason and adjustment.

I will have each comb in each hive a good and movable one.

I will have my bees at peak at the start of the spring honeyflow, if humanly possible.

I will make an attempt to find the causes why the average per colony production is low and increase it if I can. Previous knowledge tells me that full hive stores and packing will help to bring the poundage up.

I will endeavor to further my knowledge of beekeeping by experiment and observation.

I will give my little knowledge to my fellow beekeepers who are interested in profitable beekeeping.

Carl M. Teasley,
Tennessee.

Why Not Test Apiaries?

THE poultrymen have stimulated a vast amount of interest in the progress of their industry by egg laying contests. At several points stations are maintained where any poultryman can send promising hens for entry. A disinterested staff keeps count of all eggs laid by each contesting hen and reports results at the end of a specified time. To win in such a contest is a much sought honor while there is nothing lost by failure to top the list. Failing to place does not indicate any lack of quality in the contesting stock since there are so many factors influencing results, such as health of the bird, etc.

In view of the fact that all forward looking queen breeders are always looking for queens which make outstanding showing in the hands of their customers, it would seem to be well worth-while to establish some agency for honey production contests.

We believe that should contest apiaries be established in some good honey producing localities that great interest would be manifested from the first. Every colony should be given the same attention and all results published at the close of each season.

Horticulturists now send their new plants to such testing stations and from them are selected the all-American winners each year. The garden folks look forward with anticipation to the announcement of results. Both vegetables and flowers are included, although at different stations.

What has proved of so great advantage to both poultrymen and gardeners may well offer something worth-while for the beekeepers. Proper supervision should be provided by experiment station staff members. It should not require a large outlay.

———ABJ———

Whither With Embargoes?

THE tendency now to place embargoes on the interstate movement of bees on combs and used equipment introduces an important problem to the industry. The restriction, of course, is in the effort to curb the spread of foulbrood within state borders and so is a defense measure from infection from without although an occasional embargo might be interpreted as the unfriendly gesture of operators to keep beekeeping territories to themselves. The problem of checking the spread of disease is serious but the embargo, even though it is fast to take effect, is for a number of reasons undesirable.

Once established the embargo is apt to lead from one restriction to another until it becomes difficult to stop. Although the restrictions now are only against the movement of bees on combs and used equipment, is it not possible that there may arise others on comb honey, extracted honey, combless bees or queens? And is it not logical to assume that once states have imposed restrictions against each other, the counties within any of them may also find a reason for behaving in the same fashion?

The cause of the embargoes now existing is not far to seek. Virginia and the Carolinas are a case in point. In the past those states have had little disease. A small appropriation and a moderate inspection force have done the job. Now in comes dis-

ease from the outside. Commercial beekeepers, moving north or south, have stopped to build up colonies or to furnish bees for pollination, movements often unknown in the states affected. Some of the shipments have been accompanied by inspection certificates from the states or origin and others have not. Some, although provided with certificates, have proved to have disease. In one case at least a clean certificate was obtained before moving, but was used on an apiary which had not been inspected.

The solution seems to be an adequate inspection program. Our readers will notice in the reports of the meetings at New Orleans that the prohibitions were subject to much discussion. We commend the deliberations of the inspectors and their desire to cooperate. At New Orleans they discussed uniform inspection laws and cooperation between the inspection forces of the various states.

There is no reason why the inspection certificate of one state should not be honored by another as they are for nursery stock, plants, cattle, and other products except that now all states do not issue certificates or have funds to do a thorough job. However, that is no reason for the discriminating against states where inspection is efficient, or why the originating states should not be able to furnish a certificate and information concerning the point of origin of shipments and their destination, which can be furnished to the inspection officials in the states to which the bees are going, and if necessary, to the states through which the bees will pass.

Such provisions, with penalties, should remove the fear of disease and the fear which embargoes are raising. Regulations and procedures like those in Texas and Kansas, if nationally adopted, would soon relieve the situation.

The beekeeper without adequate inspection would find himself in a poor position if he should try to better himself by moving to another state. He will have to bestir himself to bring his state into line.

Inspection departments are doing all they can with the funds at their disposal. The real reason for this unpleasant situation is with the beekeeper. If he wants to maintain free movement, he should not evade or disregard regulations put there for the protection of the industry. Migratory beekeeping seems to be here to stay. However, we abhor the word *embargo*.

—*ABJ*—

Bees at the World's Fairs

THE California State Beekeepers' Association is preparing an exhibit for the great exposition soon to open on Treasure Island in San Francisco. It is estimated that $2500 will be needed to install and maintain a suitable exhibit.

This is a rare opportunity to present the merits of honey to the public. Enormous crowds will visit the exposition and many will acquire new tastes and new interests from the things they see there. We congratulate the California beekeepers on this opportunity and upon the use they propose to make of it.

It is to be hoped that a similar exhibit will be put on at the New York show.

J. William Brown, 17, and Stafford Meeker, 18 of Irvington, New Jersey, are attempting to develop bee racing as a sport, and they even go so far as to hope that an exhibition of bee racing may be included as an attraction at the 1939 World's Fair.

Both boys have been beekeepers several years. Brown entered Cornell University this fall to study beekeeping and entomology, and is a member of the Essex County Beekeeper's Association. During a discussion of the homing instinct of the pigeon, Brown hit upon the thought of racing bees. He started by selecting a few drones and taking them a short distance away from their hives. They were back at once. They increased the distance until the bees were regularly covering a distance between a mile and a half mile. They find that drones make the best racers because they return at once to the hive, while worker bees may be tempted off their course. The drones are marked with colored thread to distinguish them. Their average time for a half mile is a minute and a half. A small percentage failed to return, but enough always finished to place winners and runners up.

—New Jersey News Service, Inc.

♦

Here in Fairfield County, Connecticut, we get little clover honey. Usually about once in five years. Our main crop is from sumac, starting about the first of July and lasting about three weeks. A rapid flow, but bees seldom gather more than fifty pounds from this source. The usual location will not support more than twenty-five colonies and there are few commercial beekeepers.

About the first of September, the bees work on the goldenrod which is quite abundant and often a good surplus is gathered from it. Two weeks later aster blooms. The bees work it vigorously. The honey is strong and rank and few people will eat it. Comb honey from aster is very light color and might pass for No. 1 clover in appearance but not in taste.

This July when sumac was in bloom it rained steadily for eight days. And did the bees swarm! From eighteen colonies I took 120 pounds of sumac honey, very dark in color.

I keep my bees in the orchard at Pepperidge Farms with 1000 apple trees. Mrs. Rudkin, of the farm, is the lady who makes the famous honey whole wheat bread which sells in quantities on the metropolitan markets. She uses about a ton of honey a month and bakes about 2,000 loaves of bread a day which retails at 25 cents a loaf. Here we get $1.00 for a 5-pound pail of honey, and 25 to 30 cents for a single pound container.

Anthony J. Cherry, Connecticut.

Curiosity seekers and some of the boys, saying good-by to a truck load of packages starting north. Year by year, this traffic increases to the profit of both the North and the South. Some of its problems are quite important to the industry.

The Package Problem

By George H. Rea,

New York.

THE principal difficulty in the way of thorough success in package bee shipping is the ever-present loss of queens after introduction. This short discussion on my part is no attempt to solve the problem, but is inspired partly by the many articles in recent issues of the various bee-keeping publications and especially by the expressed desire of the editors who seek the opinions of beekeepers. Having been in the extension work since it was put on a permanent basis in 1916, and having produced some package bees and installed hundreds of them, perhaps I am qualified to speak on the subject as much as certain politicians who, it is said, were appointed to important positions because they knew absolutely nothing about the work to which they were assigned.

First of all, I want to express my high regard for the shippers of package bees with whom I am personally acquainted, and I know a lot of them, and for their absolute integrity and desire to rear the best possible queens and to give all-round satisfaction to their customers. This is sound business and is the most hopeful note in the whole situation. It is to be understood, of course, that I have not the least desire to criticize the practices of the producers of package bees and queens, but desire only to discuss the problem in a way which may be helpful to both the producer and the receiver of the bees. The research workers, and others, have already made valuable contributions toward the solution of the problem, yet the ultimate goal seems to be all too far away.

In spite of the heavy loss of queens in package bees, I still believe that aside from making one's own increase in one's own apiary, package bees offer the best means of making increase rapidly. Package bees are undoubtedly still the solution for the beginner, although the all-too-often heavy loss may be discouraging. To cite a few instances coming under my personal observation, this spring, two lots of five three-pound packages dwindled to two colonies, in each case because of the disappearance of three-fifths of the queens soon after the packages were installed. Another lot of fifteen three-pound packages was reduced to two ordinary colonies at the beginning of the clover honey-flow. Thirteen of them rapidly dwindled out after the queens disappeared.

On the other hand, many fine colonies are built annually from package bees with little or no loss. One extensive beekeeper installs a large number of packages each year with so little loss that he is enthusiastic about the matter. In his case part of the packages are used to strengthen weak colonies, in which a new queen may or may not be included. There can be no question but that there is no better method for rapidly building up weak colonies than to unite package bees with them. Colonies which otherwise would be worthless for the clover honey crop are put into condition to harvest a crop.

One naturally wonders why two out of five packages, all in the same apiary and all treated exactly alike, build up into fine colonies while the other three are a total loss, or why two colonies out of fifteen produced like results, while in another apiary a similar number of packages showed little or no loss. I have noted these results repeatedly, year after year. Why is it that one experienced beekeeper is completely disgusted with the whole package business because of the losses which he has suffered, while another is enthusiastic because of his success? To add to the complexity of the thing, in many cases the beekeeper who complained of his heavy loss one year succeeded wonderfully the next year. This I have noted in several cases also. If I were able to follow the progress or the lack of progress in these colonies from the time they were installed until the climax of success or failure, perhaps I would be better able to make a close guess at the factors involved, but because the nature of my work does not permit me to visit these apiaries more than two or three times each season, one guess may be as good as another.

Several important factors have been discussed by writers in recent issues of the bee journals and in the publications of research workers. No attempt will be made to cite these articles, but no doubt all have thrown light on important factors. Because it is not clear which factor or factors are most important, no attempt is made to discuss them in order of importance, and were it not for the fact that the expressed opinions and experiences of various workers might bring to light valuable evidence, I would refrain from cluttering up the pages of a fine bee journal with a rehash of what others have already said.

There always have been queen losses in package bees, both immediately after installation and by later supersedure. Whether it is worse

now than it was a few years ago may be questioned, but it is more noticeable and perhaps more important now because of the more extensive use of package bees and the greater dependence the beekeepers place upon this source of bees for their honey crops.

No doubt there always will be some loss of queens, and this should be expected and planned for by both the producer and the user of the bees, but surely there will be ways found to prevent the tremendous losses now sustained by many.

It seems to be an established fact that undernourished and poorly developed queens are soon superseded by the bees. To produce fine queens with great egg-laying capacity, the queen breeders endeavor to cooperate with nature to supply every need of the bees for the production of fine queens. This is often difficult, even in the best southern location, especially in seasons when in early spring the queen breeder must rear queens for his early orders under conditions which are absolutely, or just about, contrary to good queen-rearing practice. The old supply of honey and pollen is used up, little or no new nectar and pollen is coming in, and adverse weather conditions add to the problem. The question is asked, naturally, can a high percentage of productive queens be reared under such conditions? The usual answer would be "No," and yet I have seen some of the men bravely buck such conditions and through great hardship, working in all kinds of poor weather, do their best to take care of the early orders of their customers and give them the best that money can buy under the conditions prevailing. These men should be commended for doing the best that any human being could possibly do under the circumstances, rather than everlastingly overhauled by the beekeepers for not producing up to their expectations.

Since my experiences confirm my belief that good queens may be reared by any of the commonly used methods of queen-rearing, that problem is passed over with the remark that in order to produce good queens by any method, conditions must be such that the bees desire to rear queens, and they must have the food and facilities to supply the growing larvae with the maximum amount of royal jelly.

After having carried numerous queen-mating nuclei over winter in this rigorous northern climate, and to a less extent in the South also, I would make a suggestion to the breeders. While weather conditions are favorable in the fall, and while there is a supply of nectar and pollen from the field, and perhaps not so much to be done in the apiaries anyway, why not fill up those thousands of nuclei with queens, bees and food and carry them over for the early orders the following spring? In many localities at least, might not highly developed queens be reared when conditions are favorable to queen-rearing while the unfavorable early spring conditions might be avoided when the big rush is on? The nuclei would already be stocked and the taking of bees from colonies already too weak for the best in package production would be avoided. I am suggesting this with the full knowledge that in many springs conditions are favorable and such a procedure would be entirely unnecessary, but how about those unfavorable springs which cannot be predicted? In many cases larger nuclei would be necessary than are now used and there would be certain wintering problems even in the South, but what of it if one factor in the whole problem might find a solution?

A strange queen placed in a cage and shipped among a lot of strange, hostile bees cannot be expected to receive favorable attention on the part of the bees for at least several hours. In the meantime, how much permanent damage has been done to her? No one knows, but some things are obvious. In a frantic endeavor to destroy the strange queen, the bees often ball the queen cage with a mass of furious bees which is still active and hostile when the package arrives at its destination. Bees which once reject a queen will usually replace her after she has laid a few eggs, even after the beekeeper has practically compelled the bees to accept her. The question arises: How about the undernourishment and shock to the queen when so treated? The so-called dry cage is especially bad in that respect because the queen may find food for herself in the provisioned cage. In addition to that fact, when the package containing the queen in a dry cage arrives, the beekeeper has no way to introduce the queen except to turn her loose among the bees. I usually lose part of my religion when a package with the queen in a dry cage is received to be installed for a 4-H Club beginner whom we want to have a one hundred per cent start. I usually supply the cake with some hurriedly made fondant and bore a hole in the end of the cage with my jackknife to give the bees a chance to liberate the queen after they have clustered. The answer to the abuse of the queen by the bees while in transit and to obviate any necessity for queen introduction, would be to ship the package bees with their own queen loose among the bees.

An experience in the spring of 1930 is worth recording here. Dadant and Sons arranged with me to ship some package bees to Scotland. One attempt failed completely because the bees failed to arrive in time at the docks in New York and were a total loss. The second attempt was entirely successful and perhaps was the only successful attempt ever made to ship package bees from the United States to Europe. A third lot failed because some official on the **Mauretania,** on which the bees were to be shipped, refused to take them because he feared that his passengers might be stung. The bees were left on the dock in the hot sun from Saturday morning until the next Tuesday when we found out what had happened through the representative of the A. I. Root Company, in New York. The bees were reported as mostly dead, and reconsignment was made to Mr. C. S. Rowe, of Kingston, New York. The point of value to this discussion is that of the forty three-pound packages, thirty-two of them contained strange queens in cages. In these the bees and the queens were all dead and a total loss. Eight of the packages contained their own queens loose among the bees, not strange queens; in these about one-third of the bees were dead while the remaining majority of the bees were quietly clustered at the tops of the cages, with their queens, and subsequently developed fine colonies in the hands of Mr. Rowe.

It would seem highly important to find out what does happen to the queen from the time she is caged by the shipper and finally introduced or lost by the receiver. How many of the queens are made useless by abuse and undernourishment? Perhaps the shock of the sudden cessation of egg laying has much to do with it. This is a factor well-known in the case of a cow in heavy milk production which suddenly meets with adverse conditions. If this is an important factor with a queen, then one might readily imagine that some of the package bees would care for the queens so well that they would arrive at destination in fine condition, while in other packages the queens would be abused and neglected so much as to render them entirely unfit for colony development and only to be rejected by the bees. Careful checking might reveal the fact that queens rejected at the start by the package bees or not fed by them for a few hours may never again regain their full egg-laying ability, even if the bees do finally accept them. Careful checking might reveal also, that queens which are accepted at once by the bees when the cage is placed in the shipping package among strange bees may be so well fed by them during the trip that injury to their egg laying seldom, if ever, occurs.

The onus for the failure of package bees has been placed mostly upon

(Please turn to page 18)

#1 - SIDE ELEVATION HONEY HOUSE Sechrist 1937

HONEY GETTING

By E. L. Sechrist, Tahiti.

An Adaptable Honey House

Equipment is indicated in these plans by letters. For the sectional view at bottom of page 15, read—P-extractor motor, fastened to shelf on wall; E-extractor; R-revolving comb tray; U-uncapping box (or cappings melter); D-clips or pipe on uncapping box to hold the drip hose from uncapping knife (water goes to a bucket); C-supers of combs on dollies or trucks; T-1-2-3-4 connected storage tanks; cans are filled at T-4; S-sump or separator (may be flat, cylindical or oblong); F-boiler flue.

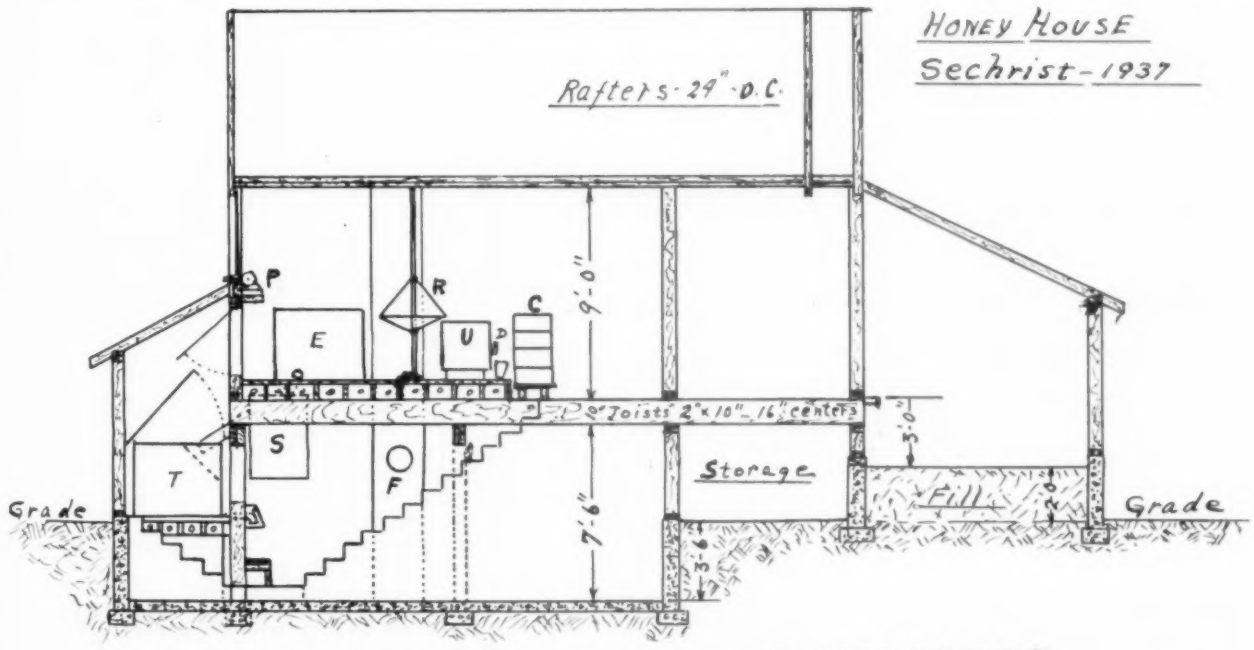
#2 - SIDE ELEVATION HONEY HOUSE Sechrist 1937

End Elevation Showing Tank Room

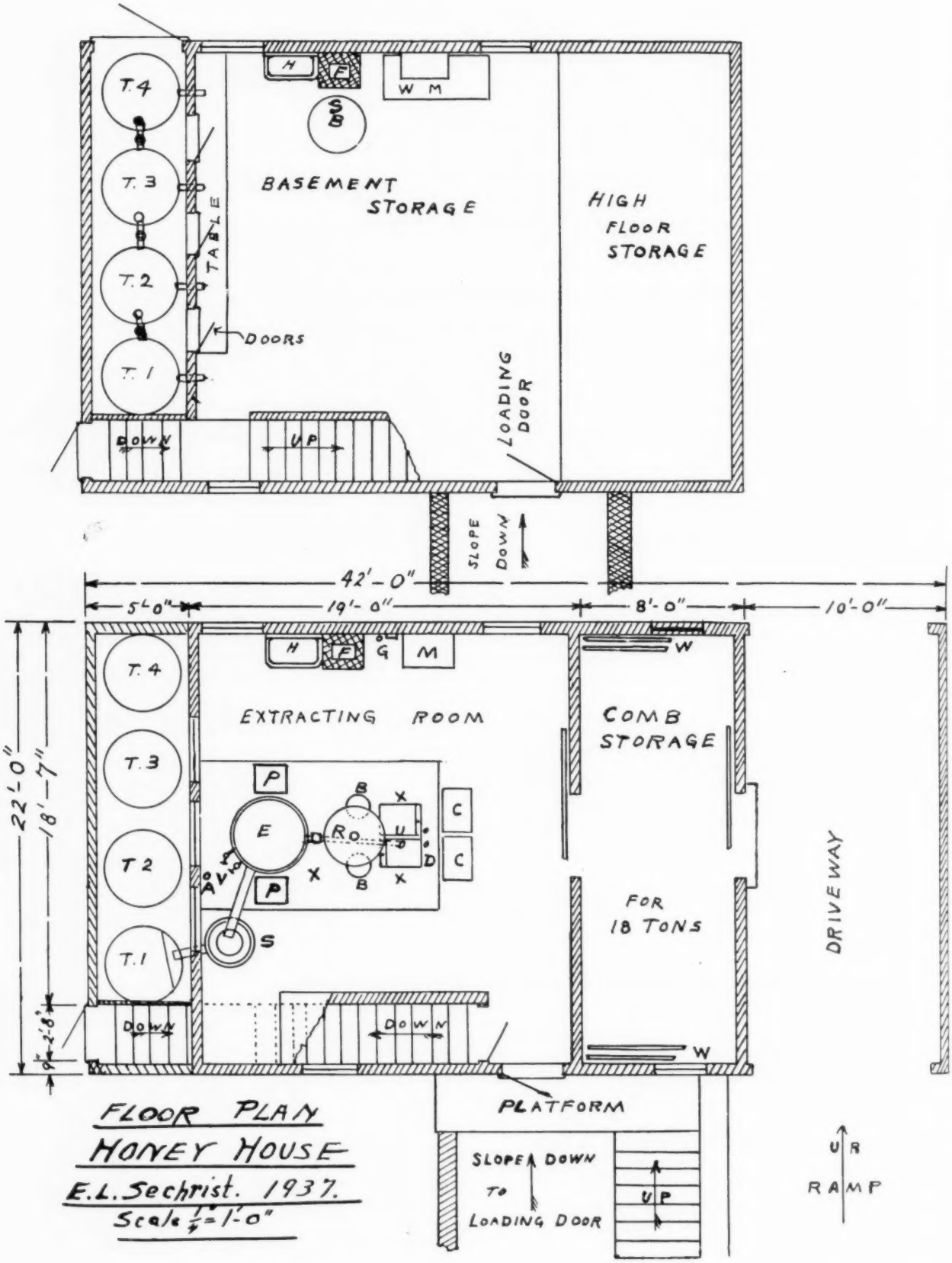
THE honey house illustrated in these drawings is adaptable to level ground or to a slope or hillside, and to changes made necessary by the size of the apiary business. Although it is shown as a gravity system, it may be adapted to the use of a honey pump.

As the honey house is the heart of the **honey getting** business, so is the extractor the heart of the honey house and around it the other equipment is arranged and the house built. The extractor, the comb tray and the uncapping box are placed close together and are shown on a platform raised ten inches above the main floor level. It will be found a convenience to have this raised platform covered with galvanized iron. By the use of joists crossing the floor joists, it has the additional advantage of distributing the vibration of the extractor, and it makes a very strong floor. The platform is made with 2"x8" joists and a two inch plank top. The main floor has 2"x10" joists and all are spaced 16" on centers, with rafters spaced 24" on centers.

No attempt is made in these plans to give full architectural details, but just enough to enable any builder and beekeeper to cooperate in working out a plan suited to his location and conditions. The building is large enough for an apiary of five hundred colonies. Some additional storage room will be required for a thousand colonies. This may easily be provided by enlarging the comb storage room and by entirely excavating the



Section Showing Framing and General Arrangement



FLOOR PLAN
HONEY HOUSE
E.L. Sechrist. 1937.
Scale $\frac{1}{4}$"=1'-0"

Other equipment, not indicated by letters on page 14—H, H-sinks, where running water or well is available; WM-wax melter, just under chute M, which has slide near bottom to hold cappings until they are to be melted, SB-steam boiler; G-steam gauge; M-chute for sending drained cappings to basement; P-galvanized pans on which to set extracted combs; B, B-basins of water for use of uncapper; A-steam riser running to uncapping box, with crosspipe for knives; V-inlet and outlet valve for heating coil of small copper pipe attached to inner wall of extractor. Outlet pipe runs to drain; W, W-steam coils, or baffles to distribute the heat in storage room.

basement instead of leaving it partly unexcavated as the drawings indicate. Four tanks are shown holding about 250 gallons each. Smaller tanks or a smaller number may be used; or the size of the tanks may be increased.

With the equipment compactly arranged, as it is, the house may also be made smaller and adapted to an apiary of one hundred colonies. Or it may be changed to a house of one floor by raising the tanks and using a honey pump; or if it is desired to retain the gravity system, the extracting platform needs only to be raised to sufficient height. If necessary, a smaller and shallower sump or separator may be used instead of the deep one shown in the plans.

If it is desired to strain the honey through cheesecloth, it is only necessary to hang a deep bag under, or tie it around the pipe leading into the first tank, after removing the baffle. The rafters above the tanks provide a good place for attaching a pulley which may be used for lifting the strainer bag to drain at night or, in case of necessity, while a fresh bag is being substituted. The tank system shown, however, makes the use of a strainer unnecessary unless under some exceptional condition. Credit should be given to Lloyd Gardiner who, in Gleanings, for January, 1935, described the four tank system of clarifying honey which I have shown. I have seen approaches to and variations of this plan used in a number of other places, but Mr. Gardiner has worked it out more carefully than I have seen elsewhere. I have, however, added the sump to separate bits of wax and waste from the honey before it goes into the tanks. While a careful worker may not find this sump necessary, it is a good precaution and should always be installed if a honey pump is used, the honey being pumped from this sump as described in my earlier articles on **honey getting.** The use of a sump also makes it possible to get good results with only one or two storage tanks if the amount of honey handled is not too great.

The tank room is insulated between the walls and supplied with steam coils so that it may be heated when necessary. On the main floor it has four doors which give access to the tanks, which have separate covers. These covers may be hung to swing in and up, except the one over tank No. 1, which should swing out if it is ever desired to use a strainer bag in this tank. On the basement floor are provided doors into the tank room so that access may be had to the valves between the tanks. It will be noted that there is a large outside door through which tanks may be put in place or removed.

The house illustrated is 22 feet by 42 feet over all; the tank room is five feet wide and the driveway 10 feet wide, making the two-story part of the house only 22 by 27 feet.

If the house is built on level ground, a fill and ramp of two feet in height are necessary to bring the truck bed to the height of the extracting floor; and a slope should be dug to the loading door, as shown, and walled on each side so that the truck can back down to that door for loading out cases of honey. If the house is built on a slope, this may not be necessary, and it may be desirable to drop the grade entrance door to the basement floor level, doing away with the flight of six steps shown going down from it. It may also be possible, in such a case, to move the main floor door, now shown entering from the platform and approached by a flight of eight steps, to the opposite side of the house, entering there on a high grade level with only a few steps, or even none. It will be noted that the slope down and the loading door in the basement are immediately under this platform.

A part of the basement is shown unexcavated, giving low storage room above. This may be entirely excavated if desired. It will also be well not to excavate under the tank room, but to put in a concrete floor on which the tank floor may be built at the height desired. There should, of course, be a good drain installed from the basement floor. This has not been shown as it will necessarily be located to suit the local conditions.

While the house drawings are made to a scale of one-fourth inch to one foot, the reduction made in printing will change the scale, the proportions, however remaining unaltered.

ABJ

A Message From League President Bohne

I wish to thank the beekeepers for the kindness they have shown me in making me president of American Honey Producers' League. I will not attempt to express my appreciation but I would assure them that my future problem will be to try to justify their faith; as a starter, to adopt the unusual proceeding of presenting a program for presidential activity during 1939, and this "platform" will be the foundation on which I hope to build a structure of "usefulness" for the beekeeping fraternity.

First—It is my desire to make the League a real national organization by urging every state to affiliate and send their state association membership to our treasurer. There are several questions of national importance before us now; uniform inspection requirements within the states, regulation of migratory beekeeping, the modification of burdensome regulations and the reduction of freight rates on honey, which naturally fall under the list of responsibilities of the League. Affiliated states should take active part in these issues.

Second—We must recognize the necessity for regional organizations with local problems to solve. The Southern Beekeeping States Federation is such an organization. Its problem is localized within the package shipping states and should be assisted with satisfactory solution of their problem. They are a part of our national association, and their success and prosperity should be a part of our responsibility.

Third—We need the American Honey Institute, so some means must be devised of supporting this activity. Through its directorate, we must assist in shaping its program of work—fight for recognition of our own needs, but supported before demanding special service.

While we omitted the appointment of the usual committee at the New Orleans meeting, we did it so that we might give more than usual thought to this function. As quickly as the committees are named and their duties outlined, they will be announced through the bee journals.

I would like to express my thanks to the journals, the Bureau of Entomology, the Federation officials, and to the affiliated states for their assistance in the New Orleans meeting. I am truly grateful. The Louisiana Commissioner of Agriculture joins me in this acknowledgment.

George W. Bohne,
Louisiana.

The Package Problem

(Continued from page 13)

the shoulders of the receiver. While he does no doubt deserve part of the blame, in many cases he has not been given a square deal. The shipper may not have the least idea of how much or how little the beekeeper knows about bees. It should be assumed that no one knows how to introduce a package of bees until he has been instructed, and every shipment should be accompanied by full instructions carefully prepared by the shipper. This seldom is done, with the result that the beginner does some fine bungling and often makes a sorry mess of the whole thing. As bad as this may seem, I still feel that if the package contains a prolific queen along with bees which are friendly to her, the little swarm will succeed in spite of bungling and frequent disturbance. It must be kept in mind, of course, that no matter what other conditions may be present, there must be adequate supply of food at all times.

The importance of an adequate supply of pollen has been emphasized by some writers. No doubt pollen is just as important as honey or sugar syrup. Bees cannot rear young without pollen and if this important element is lacking, disaster is sure to meet the struggling colony, no matter what else is done for it. One commercial honey producer who carries one of our demonstration projects has a higher degree of success in starting new colonies with package bees than is usual; he saves combs of honey and pollen from the goldenrod and buckwheat honeyflows for the use of the package bees the next spring. In spite of this precaution, there are too many queens which disappear soon after producing a small brood nest or are rejected at open for investigation also.

Another possible factor may be the lack of fertility of the queens because of poor insemination in certain conditions under which both the queens and the drones are reared. Investigators may find that this may be a weakness in some strains of bees. The possibility of queens diseased by some unknown organism is open for investigation also.

It is highly important that the producers of package bees and queens, research workers and the users of bees and queens work in harmony and in close cooperation and that all keep sweet while so doing. The testing of queens in honey producing colonies may cause the loss of the honey crop for some colonies, but what of it if helpful information is gained? It would be helpful for some of the producers to change practice sufficiently to find whether the situation might be improved.

—ABJ—

George C. Lewis

Mr. George C. Lewis, president and general manager of the G. B. Lewis Company for thirty-five years, died at his home in Watertown, Wisconsin, on December 12, 1938, following a heart attack. He had been closely identified with the manufacture of beekeepers' supplies all his life, succeeding his father, G. B. Lewis, who founded the business in 1863.

The Lewis Company was among the pioneers in the bee supply industry. In the early years they manufactured bee supplies as a side line but soon made it their major business. The one-piece section was first developed and manufactured by them on a large scale. Through Mr. Lewis' aggressiveness, many improvements in bee equipment were developed.

Ever since the organization of the American Honey Institute, Mr. Lewis has been one of its staunchest supporters and during the past four or five years, he has been president of the Board of Directors and chairman of the Executive Committee. He devoted much time to Institute affairs and was instrumental in its safe management.

He was held in very high esteem by other business men with whom he came in contact as he could always be depended upon to be fair and just on any controversial matter.

Although not much known to the beekeeping public, he was nevertheless very much interested in the problems of the honey industry and was always ready to lend whatever help he could in the improvement of beekeeping conditions. He will be sorely missed by his friends and business associates.

As a young man, he attended St. John's Military Academy at Delafield, Wisconsin, and Knox College, Galesburg, Illinois. He later became a member of the Immanuel Presbyterian Church, of Milwaukee, Wisconsin, a member of B. P. O. E. No. 666 of Watertown, and of the Watertown Country Club. He is survived by his widow, Mrs. Margaret Nelson Lewis, of Watertown; a son, T. N. Lewis, of Knoxville, Tennessee; and a daughter, Mrs. Allen Coker, Alexandria, Virginia. The funeral was held December 15th at the home, 408 So. Washington St., Watertown with interment in Oak Hill Cemetery.

Our Cover Picture

Bees on the Farm

It is our hope during 1939 to use a series of cover pictures which emphasize the close relationship between the beekeeper and his neighbor, the farmer, over whose fields the bees pasture.

This month the subject is cows grazing in summer pasture. Where live stock farming prevails we find the most stable beekeeping as well as the most prosperous agriculture. In such regions we do not find the sudden shifts from one crop to another that often occur in neighborhoods depending upon tilled crops.

The dairy industry is especially conservative in its methods and the beekeeper who is located in a good dairy community has little to fear concerning future bee pasture. The dairyman can usually be depended upon as a grower of legumes. In humid regions his cows will be pasturing on white Dutch clover and his barns will be filled with alsike, both of which yield dependable crops of splendid honey. In dryer regions he will depend upon alfalfa and sweet clover which are likewise useful to the beekeeper.

Wherever we find farmers depending upon the dairy cow as the main source of income we may look with confidence for a prosperous honey producing center. The prosperity of the farmer is increased by the presence of the bees whose visits insure pollination of the clover bloom and an abundant crop of seed. In return the bees find a dependable supply of nectar and thus there is stability for all concerned.

—ABJ—

Carbolic Acid For Robbers

When unloading honey at the honey house during the dearth of nectar, I soak cloths in a solution of carbolic acid and hang them at the upper corners of the honey house door. This helps to keep a large per cent of the bees outside when the doors are open. John Bruce,
Illinois.

The Formation of Habits by Bees

By Annie D. Betts,

England.

DR. A. Minderhout, expert in bee-keeping at Wageningen, Holland, has made a number of interesting experiments on the behavior of bees and wasps when collecting food. He has observed that it is only in a few cases that we know how bees form habits, and all of these cases are concerned with the natural reactions of bees—as, for example, when they associate the presence of syrup with a particular color. Dr. Minderhout has devised a test which shows how long bees take to learn to solve a problem which involves their acting contrary to their natural impulses.

He rolled a piece of stiff drawing paper, about 25½x20 inches, into a cylinder 20 inches long and 3 inches in diameter, securing it with paper fasteners. One end was closed with a piece of net like that used for bee veils and the other by a black paper cap, having a round hole 0.59 inches right against the floor of the horizontally placed cylinder.

One inch on either side of the center of the cylinder, two cuts were made with a sharp knife at right angles to the cylinder axis and going rather more than half way through it. The portion between the cuts was pushed in so as to form a bridge 2 inches wide, which must be about 1½ cm. above the floor. This insures that bees can climb down off the bridge easily, yet cannot too easily climb back up on to it again.

A watchglass with syrup is placed on the bridge. A black cloth is laid under the cylinder, either end long enough to cover the hole in the cylinder completely when folded over it. The direction of the wind decides which end of the cloth is to be used. The apparatus is fixed to a stout plank so it cannot be disturbed by wind and is placed outdoors on a table. The end with the exit hole is pointed north and the observer sits at the opposite end about a yard from it.

A bee is brought to the syrup by means of a strip of paper dampened with syrup which she is induced to suck. The center hole is uncovered and is marked with paint to be recognizable on the bee's return. While she is drinking, the cloth is cautiously laid over the opening.

When the bee has filled her sac, she goes first to the end A. because this end is much the brighter of the two, and it is only after a time that she learns that the way out lies at B. The observer, who can see her through the hole at B., times her with a stop watch from the time she leaves the bridge until she comes out.

The times occupied by the bee in finding her way out on successive visits are plotted on squared paper in serial order and give the bee's "learning curve" for the problem given her—that of finding her way out by acting contrary to her instinct which always leads her to go towards the brightest light.

Every time she returns, she is allowed to enter the cylinder through the top hole which is then covered as before while she is drinking.

The results show that a bee takes a long time to learn the shortest way out and not until some one hundred repetitions did they seem to know it well. But even then some bees ran to the wrong end in sixty per cent of their attempts. Once a bee has learned how to escape, a pause of some hours—even to another day—does not appear greatly to affect her memory.

In this she differs from the American cockroach and other insects which appear to forget their lessons after an interval. Individual bees differ much in their learning capacity. Attempts made to hasten the learning process by means of punishments for going the wrong way, such as sprinkling with flour or blowing the bee out of the cylinder with a strong blast of air, were without result in speeding up the bee's education.

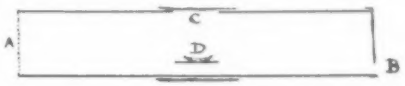


FIG. 1.

Cylinder used by Minderhaut.

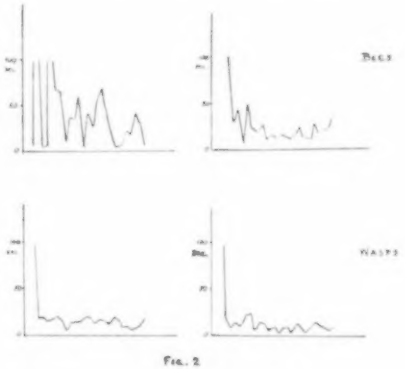


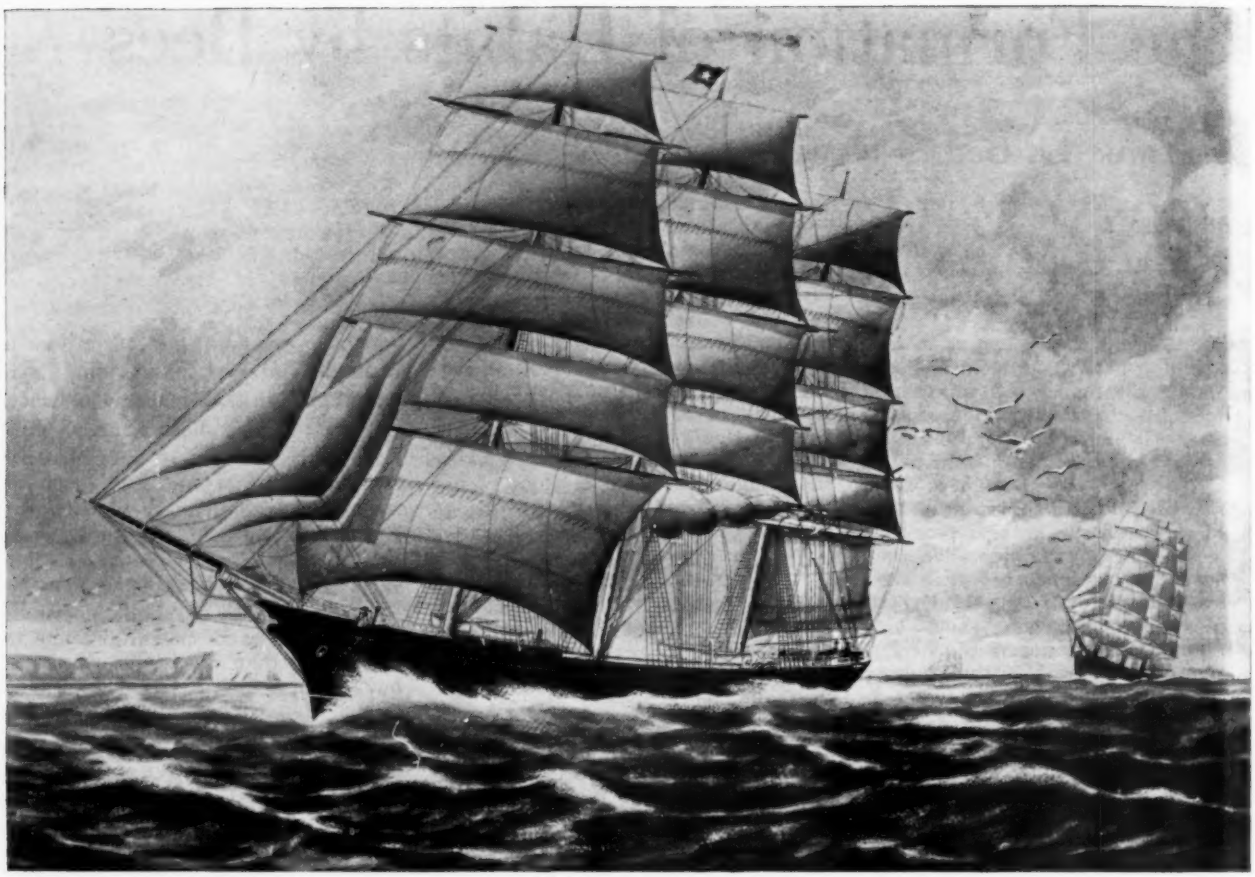
FIG. 2

Comparative memory curves for bees and for wasps.

Wasps, **(Vespa germanica)**, proved much shyer and more difficult to work with than bees, but once they have been induced to help in the study, showed themselves quicker to learn. After about ten trials they had reached a stage arrived at by bees much later, yet even they still went towards the wrong end of the cylinder after leaving the bridge after twenty-five repetitions.

The experiments show, according to Dr. Minderhout, that wasps have not a language like bees. During all the work with wasps, only the wasps marked arrived at the apparatus. With bees, many newcomers arrived and had to be killed to prevent the disturbance of the marked bees. This was often difficult. Wasps, in this respect, are easier to work with than bees. The bees flew around for a few seconds with their scent glands exposed, whereas the wasps flew straight to the syrup.

(In my opinion, I am not certain that wasps have no language though doubtless it is not so well developed as the bees' system of recruiting dances. Possibly, wasps regard sugar syrup as a delicacy for the individual rather than as the fare for the community. Experiments ought to be made with meat or other substances resembling the usual food of the wasp's larvae. Unwanted bees can be prevented arriving at the syrup by using weak solutions. Von Frisch has shown that bees when collecting syrup do not dance on their return to the hive unless the syrup is stronger than a certain concentration. The exact strength depends upon circumstances. A syrup that is normally attractive will not be so if the bees have been feeding previously on stronger syrup. So, it should be possible to reduce the visits of superfluous bees during such experiments.—A. D. B.)



Down to the Sea With Beeswax

By J. T. MacMillan,

New York.

A visit with Yankee Clippers and Down East Sails.

HATS off to the Stars and Stripes! When men were men and ships were ghosting sails; yes, in the days when Langstroth struggled to perfect his hive, beeswax had a part in making men say "Hats off to the Stars and Stripes." Settle down into your most comfortable chair. Get out your pipe and light up. Ready? Here's the story.

We'll go back to the pioneer days of 1851, you and I, to begin the trip that takes us down to the sea with a bundle of beeswax over our shoulders. Let's take the wax to Ratsey and Lapthorn, master artizans in sailmaking. After having sold it —for they always had great need for that valued product of the honey-bee—we'll stop a while to look around and to listen to the gossip.

In those days the talk usually turned to the new American built clipper ships and the amazing speed records that American sails were making and breaking daily.

The famous Flying Cloud bound out of Boston for San Francisco, 13,610 miles, had just made the passage in 89 days. A blistering salty Cape Horn passage with the Panama Canal yet in the dream stage. Just a year or two later, bee-keeper and sailmaker alike congratulated themselves when the Andrew Jackson out of Boston made the same adventurous run in 80 days.

In the intervening period, over 200 full square rigged craft were slid down the ways to cover the Seven Seas with respect for our country. There were the Phantom of the Seas, the graceful Staghound and the merry Sea Witch, all carrying more than 10,000 yards of canvas in a good breeze. Spread out on the ground, this would cover between one and two square acres.

Most of these majestic, history making clippers carried 30 or 32 sails totaling 14,000 yards of canvas, bound and sewed together with strips and thread containing from 200 to 300 pounds of beeswax. Truly they were ships of iron with strong wings of the eagle.

Down at Ratsey's sail yard we saw and heard a small part of the immortal story of the sail. This art of sailmaking goes back countless ages to the papyrus or paper sail of the Nile River and the cotton sail of ancient India. Sails of warlike Rome were mostly linen, as were those of the venturesome Phoenician and the fierce Viking in his forerunner of the modern racing craft. And whenever sails are mentioned in history, most of these peoples speak also of bees-

wax. Up to recent times, almost all ships were square-rigged—sails at right angles to the length of the ship—as contrasted to the present day fore-and-afters such as the America's Cup defenders.

Clippers were built for speed in running before the wind. Thus the sails caught the full force of the gales at times and had to withstand terrific pressures and strains. On the maiden passage of the Winged Racer, the captain thought to take in some canvas because of a gale strong enough to tear it to pieces, in the presence on board of the owner.

But he was persuaded not to do so by the owners, "Don't worry, Captain, those sails are bound in iron."

To gain this strength all sails were made up of many scores of long, narrow strips of canvas. At points of strain several plies in thickness were used. The strips were fitted and sewed together by hand, using one to two inch laps and double stitching to the tune of 240 stitches to the yard. The lapped parts were first smeared with liquid beeswax. Frequently bights, or flat folds were sewed lengthwise in the center of each strip to give added strength and shape to the finished sail.

Pure beeswax with small amounts of turpentine and rosin made it possible to join together these tough 30 and 40 foot lengths of heavy canvas. It also made the treated twine and joints more elastic in the billowing sail, adding to its life and strength. And the fact that beeswax has never been supplanted by any other material, even to this day, gives beekeepers a rich heritage in America's place on the seas.

Then the edges of the sails were doubly hemmed and strengthened by beeswax-treated bolt rope which on the main sail was as much as 6 inches in diameter. This rope prevented the shredding of an entire sail. It was fastened along the edge of the sail with three or four long narrow strips of canvas twined together to form a massive sewing cord which was saturated in beeswax. In all, from 10 to 20 pounds of beeswax went into the making of one mainsail.

Despite iron bound wings such as these, fast clippers always had skilled sailmakers aboard. For with utter disregard of cost, skippers in the China tea trade would order more canvas aloft at times when present day captains would start to run for the nearest sheltered haven. This meant that the highly valued sailmaker was kept busy day and night digging into his locker for twine and beeswax to repair the rips and tears caused by the demands for speed and yet more speed.

In fact the logs of light footed craft such as the Lightning and James Baine refer to sail shortage time and again because the sailmaker could not, even with the help of several apprentices, keep up with the growing heap of torn and tattered canvas. On one of these passages, the Lightning with every stitch of canvas from the moonsail to the staysail set, made the port of Liverpool 12 days out of Boston. This was hours faster than the time of crack Cunard line steamers of years later.

Sold to the British and converted to a troop ship, she then proceeded to India arriving there days ahead of the steamers in the same convoy. Today, these romantic ladies of the sea would show their heels to 60% of all the steam vessels afloat. That is not an idle boast for many of them can point to 24 hour runs of more than 400 miles: or to speeds of 20 and 21 knots per hour.

Even the La France, the largest windjammer afloat, could log speeds of 14 and 15 knots per hour for eight and ten days at a stretch. She carried about 18,000 yards of canvas, to say nothing of 80 miles of fixed and running rope rigging. Here again beeswax had its part to play. To prevent raveling of these ropes, beeswax treated cord was securely wrapped about each rope end.

Toward the close of the clipper ship era, the competition offered by the larger steamships forced owners to cut running costs and to develop a sailship that could head closer into the wind without too much tacking back and forth. This resulted in the development of the fore-and-after rigged sailship such as we all know today. They are active every year in the annual spring grain race from Australia to England. Of every ten ships sailing this hazardous 14,000 mile course, one never reaches its destination.

While the Scandinavian whaling and fishing fleets today comprise the greater part of all windjammers afloat, there are still about a thousand American owned fishing and lumber schooners. This does not take into account the widened horizon of the American way of life; for there are today literally hundreds of thousands of sail craft afloat in American waters, using beeswax in one way or another.

—ABJ—

Marketing Michigan Honey

By Elmer Carroll,

Editor Michigan Beekeeper.

THE accompanying picture illustrates the labels once used in Michigan under the Department of Agriculture's Bonded Produce Plan of marketing, grading, and advertising Michigan farm produce.

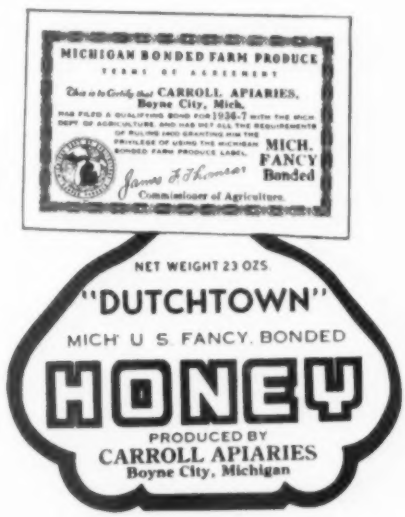
This system was inaugurated in 1935 under Commissioner James F. Thomson, and called for the registration and bonding of all those participating. The outstanding weakness in this plan as set up was the policing and check-up of grading.

The new administration that went into power in 1936 was quick to see this weakness and the whole plan was scrapped. However, much credit must be given the recent administration for progress made with several farm products, notably potatoes. While they have assisted the apple growers, the success of their present marketing must be largely credited to the apple men themselves. And the administration has repeatedly stated that when honey producers were ready to adopt a plan that would be agreeable to the department, they were anxious to cooperate. Producer cooperation was lacking under the Bonded Plan.

Now the 1934 Republican group is back at the capitol. What they will do for honey producers is problematical—but they will do something, we are assured of that.

In the meantime, the large crop of honey in southern Michigan has not all been a loss, if you don't count immediate cash returns. Nothing else has been so effective as this large crop on an early stagnant market to bring Michigan beekeepers together in serious discussion of cooperative marketing. The state association held several special meetings this year to discuss plans for cooperative marketing and grading. Each meeting was attended by more than a hundred of the larger producers, and while nothing definite has been done, curiosity and cooperation are aroused. Most members are desirous of a little more study on the situation and its possible results.

Marketing Michigan honey is a topic to be discussed at the annual meeting in February, a subject which will draw a large crowd.



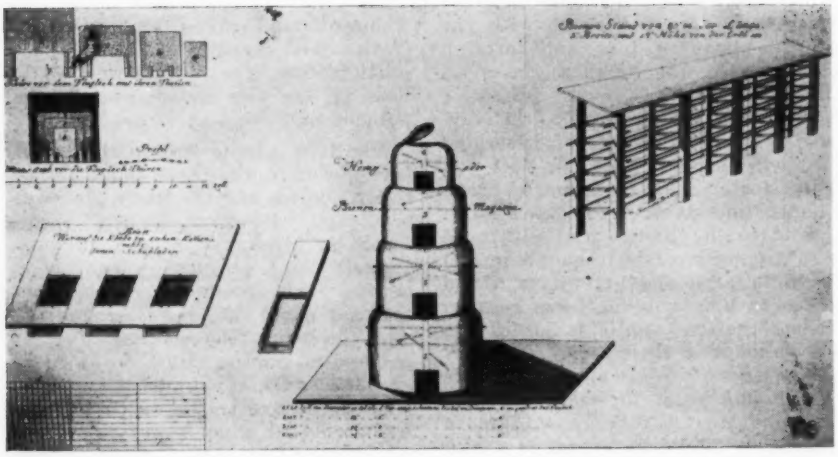


Illustration from Eyrich's book on bees.

Johann Leonard Eyrich's Beekeeping Methods

By E. C. Alfonsus and H. F. Wilson,

Wisconsin.

EYRICH'S activity falls in the second half of the eighteenth century. During the time of his apicultural work he was pastor at Etzelsheim, in the province of Franconia, Germany. Eyrich was a very fruitful writer, but was mainly interested in the practical side of beekeeping: Like Schirach, he engaged in organization work and founded the Frankisch Physikalische und Oekonomische Bienengesellschaft (Franconian Physical and Economical Beekeepers' Society), in 1768. For many years he was secretary of this organization which published four volumes of a periodical, "Abhandlungen und Erfahrungen der fraenkishch - physikalisch - oekonomischen Bienengesellschaft auf das Jahr 1770-73," edited by Eyrich.

The members of this organization were divided into three classes—honorary members, scientific investigators and practical beekeepers. The members met twice every year to discuss scientific and practical questions about bees. The regular meetings were held the first Thursday in Lent and the Thursday after Whitsuntide. On these occasions papers on apicultural subjects were presented and discussed by the members. Practical demonstrations were also offered. All dues had to be paid at the main convention on the first Thursday in Lenten. A questionnaire was handed to each member including questions of a practical and scientific nature. The collection of experiences, opinions about difficult questions and problems proved valuable and helped to enlighten many of the mysterious phenomena of the honeybee.

A questionnaire compiled by Eyrich contained the following questions:

How many colonies has the member?

What is the size of the skeps which produced natural swarms? Have divisions been made? How many times has each colony swarmed or how many divisions have been made? What was the weight of each colony in the fall and spring? What is the condition of the mother hive after the first and second swarm? How many times did the magazine-hives (supered) swarm? In what proportion is the number of swarms to the size of the hive? How long does a colony last which is never divided? What are your experiences with divided colonies? How do they get along in poor years? Is it possible to make old colonies five to seven years or older profitable again by division? Are you using magazines on your hives? Did the magazines of Madame Vicat succeed? What methods do you use to obtain your wax and honey? Which is the finest wax and honey? How are drones produced? Are they true males? How is dysentery cured and how does it originate? Are there different kinds of it? What causes foulbrood and how should it be treated? How many kinds of foulbrood are there? Where do bee-lice come from and how can they be exterminated?

There are many other economic questions in this questionnaire, some of which are still vital questions in present day beekeeping.

Eyrich's first work appeared in 1766 as an instruction on how to keep bees in all provinces, on a large scale, with new editions in 1768, 1769, and 1771.

In 1768 he published the plan of the Franconian Beekeeper's Society, with a discussion on swarming and magazines. The same year he also wrote a description of beekeeping conditions in the highland around Culmbach (Bavaria).

In 1774 two papers on wintering of bees and one describing improved log-gum beekeeping appeared. Eyrich's last book appeared in 1780 as a beekeepers' calendar, a year around manual of skep beekeeping.

Eyrich's style is clear and easy to understand and his methods are generally based on Schirach's plan. Just as the Franconian Beekeepers' Society was a daughter institution of the Upper-Lusatian Beekeepers' Society, Eyrich recognized and praised the findings and methods of Schirach and his Society and often simplified and improved them.

Eyrich repeatedly warns against the wintering of weak colonies,

which proved unprofitable, because they usually perish. For this reason he did not believe in hiving late swarms and recommended returning them to the mother colony. He united his weak colonies after removal of one queen and placing one hive on top of the other. He did not like to have his colonies weak at any time of the year, recognizing the wax moth, robbing bees, and diseases to be the main causes for weak colonies. He found excessive swarming which he tried to prevent by introducing the magazine hive (supers). His magazine hive is pictured in the illustration and has the brood chamber in the top. Evidently in constructing this hive Eyrich was influenced by the writings of John Gedde, Palteau von Metz, and Madame Vicat, all early advocates of magazine beekeeping. The cutting of queen cells proved to be only a partial control of swarming and he recommends supering before the cells were started. However, cutting out cells and supering at the same time often appeared to be a means to stop swarming. He warned against too early supering since too much **room** discourages the bees because the bees are unable to produce the high temperature which is necessary to introduce **wax sweating.** He always preferred colonies with a less developed tendency to swarm. He observed that every swarm takes along a large share of honey from the mother colony and the increased swarming propensity of colonies in a location with a slow honeyflow. He advised the beekeepers to buy colonies with a laying queen in preference to buying a swarm, which often contained an unfertile queen and therefore, was not as profitable.

Eyrich considered a good location the main factor for successful beekeeping in addition to large hives or hives which could be enlarged in the case of need. For this purpose he constructed his own hive which is shown in the center of the accompanying illustration taken from Eyrich's text. A hive stand is pictured on the right of it, while on the left in the middle is shown a bottom board for three hives with feeding boxes attached underneath. These drawer-like feeders also allowed a cleaning of the bottom board without disturbance of the colony. He was the first one to use cane sugar (at that time extremely expensive) as food in preference to condensed fruit juices which easily spoiled in the cells.

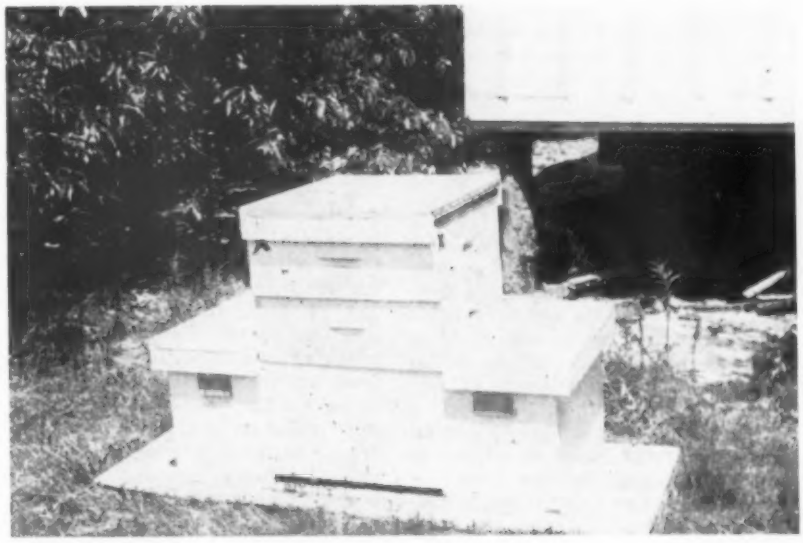
He recommended fall feeding and observed that very well fed and strong colonies even preserved their drones over winter. In the fall he reduced every colony to a single story in order to help them keep up a suitable inside temperature. A colony whose bees became chilled and unable to move was often helped by sprinkling them with a lukewarm sugar solution. He experienced the best results with the colonies facing southeast.

Eyrich reported an interesting invention of one of his friends, Pater Schirmer, who cleaned colonies which had drones in over-abundance by straining them through a small mesh fish net which allowed the workers to pass through while the drones got caught. Eyrich did not recommend this device however as the queen was often caught in the net. This is the first use of the principle upon which our queen excluders of today operate. Eyrich however made use of this invention by constructing a rather complicated entrance. It is pictured on the right side at the top of the illustration. Little boards with different sized openings adapt the entrance to the need of the season. Board number three had two little openings which allowed a worker to pass but was too small to allow the passage of drones. It was also used when robbing bees made the yard unsafe. Eyrich still had another remedy to cure robbery, he dusted the robbers with flour, traced them back to their hives. When the position of such robbing colonies was changed, robbing ceased immediately.

Eyrich had one especially valuable characteristic: through his questionnaire, as well as from other sources, he learned about new inventions or discoveries in the field of apiculture but always went to work first to test and qualify the new discoveries as to their usefulness and then published his observations and experiences. Thus, he became a true leader among the beekeepers of his time and we of today still have to admire his strong working ability and his keen inventive mind.

—ABJ—

The Bell Duo-Hive



Two queen systems are now again of much interest, following the careful tests of C. L. Farrar in Wyoming and Wisconsin and the results in production of beekeepers, reported in the bee magazines. Some are dazzling since they seem to offer a way to increase crops, without promising also to greatly increase costs. Farrar uses an upright equipment in which to house two queens. Bell in California, following earlier pioneers, has a long idea with side compartments as in this illustration. It has a seven frame compartment at each side, with a division between each compartment and the center, in which a queen exxcluder reaches half way up the division. The central compartment is for ten frames, with a baffle in the center reaching about two thirds the way up to help keep the colonies in each side in balance. He now proposes a solid partition as better. The front entrance is for both colonies to use, except at the time of installation when the new colonies have the use of flight holes of their own (closed in the photo.) Supers are placed over the center.

So far, in our own yards, the duo hives give promise but we have too few figures to give. Nor do we know how it compares with Farrar's plan Both will be used and we will see what we see.

At left, a picture of my bees on the moors, taken there at the beginning of August and brought back to the home yard the middle of September. Back hives are telescopic W. B. C., our mostly used hive. Those in front are the new National hives, with certain modifications of my own. At the right, you see the flush entrance adopted for moving to the moors.

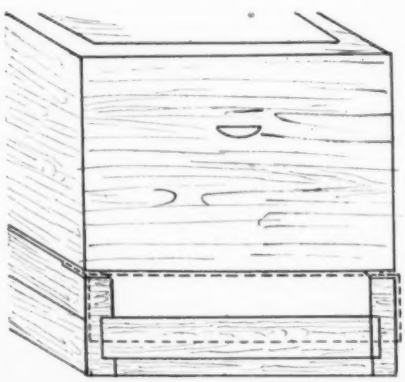
Migratory Beekeeping in England

By David F. James,

England.

THE practice of taking the bees to the heather is the most important form of migration in England. However, in certain localities, one finds some beekeepers who supply colonies for the pollination of fruit, being paid upwards to ten shillings (2.50) for each one. In the writer's case an offer has just been made for this kind of work. Although no payment will be made, transport and a permanent site near the orchard are provided. Over here we are free from the practice of aeroplane dusting during the blossoming period, owing, no doubt, to the smallness of the fruit holdings. Further, the practice of applying arsenical sprays during blossoming period is not as serious as might be expected because lime sulphur, which acts as a deterrent, is usually added. Migration during the main crop is seldom practiced as the variation in the flowering periods of different honey plants is only a matter of a few days from the most southerly point to the most northerly area. Even if the variation were large, it would always be hazardous to migrate on account of the uncertain climate.

For the purpose of migration it is obvious that hives must be of suitable type. Hives of the British W. B. C. type are widely used in this country. The writer, after transporting a number of these hives for a period of years, is about to give them up as a bad job. Although it is possible that the extra protection they afford may be good, it is far outweighed by the faults the hives possess. They consist of many movable parts, and are heavy and awkward to lift. The parts come apart easily and the inner walls, usually consisting of ⅜-inch wood, do not allow any movement without releasing the bees below the supers. Another abomination of these hives in general is the W. B. C. metal end for spacing the frames, made of thin tin which telescopes with the slightest jar, jamming the combs together at one end of the hive, or at the least crushing two comb faces with all the bees on them and causing needless upset on the journey. Further, being tinned on the top bar the whole frame hanging below is left free to swing. Quilts instead of crown boards [inner covers] should not be used unless pinned down or replaced by some cover more satisfactory for the journey. However, if British standard frames are to be used the National hive is undoubtedly the best, but it is a pity it is not of ⅞-inch wood. In one of the accompanying photographs it will be seen that the writer has a number of hives with floor boards the same size as the hive, that is, without any alighting board whatsoever. In this respect they are similar to those used by Brother Adam, of Buckfast Abbey, in Devon. I believe that they have a number of advantages over the ordinary projecting floor board: there is no place for water to collect; drip from the roof falls to the ground; they occupy less space in the lorry and provide an almost foolproof method of fastening in the bees. With the following description I will try to make this clear.



Flush entrance. The dotted line represents the perforated zinc fitted into slots.

At the front ends of the side bars of the floor, small grooves are cut out about 1/16 inch deep and running backwards about ½-inch. A piece of perforated zinc about 2-inches wide and as long as the hive is obtained. Half of this is folded over lengthwise at right angles. This, it will be seen, will fit into the grooves in the side bars and can be fixed with half a dozen pins. Unlike other methods of closing, it is quite independent of the body box which can move considerably without releasing the bees. I have not tried transporting the bees without closing the entrances but have sometimes had them improperly closed. In one

case we saw the bees flying out behind, and we have had other trouble, so we do not feel much inclined to experiment in this comparatively thickly populated area. The trouble is not so much on the good roads, but when one gets on the country roads one hits stones or runs into pot holes which jerk the bees off the cluster; it is then that the trouble would begin.

The bees appear to manage perfectly well without an alighting board, using the hive front, or the floor when the entrance block is removed. Alighting boards may be provided on the stands if desired. The only disadvantage that I can see is that the grass will grow right up to the entrance, but this is easily cut away.

Where colonies are very strong it may be necessary to provide a ventilated cover to prevent suffocation. The bees are taken to the heather between August 1 and 14 and are left until about the middle of September, although one heather man of the writer's acquaintance leaves them into October; but this same beekeeper complained that he always loses a queen or so in transport. It is not likely that this disturbance late in the season when there is no brood is the cause?

The orthodox time of day for moving to the moors is in the early hours of the morning, starting before it is light in order to arrive before sunrise. However, the writer, being lazier than other beekeepers, prefers to shut the colonies up and to go off with them the same night, when they are released and allowed until morning to settle. Usually, where large numbers of colonies have to be moved, it is found simpler to go early in the morning.

The net hive cost for transport varies with the distance, but ranges from, roughly, 25 to 50 cents per season. This applies to the single walled hives, of course; but I find that I can carry about 12 single walled hives to three of the W. B. C. hives, owing to the latter's projecting parts and the impossibility of piling satisfactorily.

In seasons like 1937, bees in the right district need no special preparations to store a surplus provided they are reasonably strong; but, normally, special preparations are required to insure a surplus if there is any surplus to get. As it is a fall flow, it is evident that old queens will be reducing their brood nests; young queens must therefore be provided in all colonies run for surplus. Further, the bees in the hive at the beginning of August will largely be exhausted from the labours of the honeyflow. To procure strong colonies one of two methods is used. Either the established stocks, having been requeened, are given combs of sealed brood to make it in a condition similar to that which it would have been at the main flow; or nuclei are made up of several combs of brood and a young queen at the beginning of June. These will normally build up to storing strength in time for the fall flow. In the first method, only a portion of the stocks will be in storing condition, the others being reduced by the removal of brood.

Here one is generally advised to take only the few selected stocks. This is true enough, if surplus honey is the only object; but the writer has another more important reason for the migration, namely, the storing of winter food and the saving of the sugar bill and, further, to enable weak increase stocks to build up. For this reason, I strongly condemn the advice and suggest that **every** colony of any reasonable strength be taken. We have in the past made quite considerable increase just before transporting to the heather by taking about five combs brood and bees from various colonies and introducing a young laying queen. These will normally build up into useful stocks for winter and sometimes store enough for winter. It must be emphasized, however, that this should not be carried out where American foulbrood is present. It is necessary either to have an outapiary in which to place them to prevent the bees returning to their own hives or to make them up just before going to the moors.

While on the subject of increase, it may be worth mentioning my experience in introducing queens by a method reported in the "Bee World" a few years ago. It was stated that, if a queen was taken away and a young one given just before transporting to the moors, so that she was not released until after they had arrived at the heather, it was almost one hundred per cent safe on account of the disturbance. In 1935 two queens were introduced to made up stocks and both were accepted, but in 1937 twelve queens were introduced to made up and established stocks. The hives containing the made up stocks accepted in every case but the losses amounting to 25 per cent were in the established stocks.

It is usually reported that drifting is very bad on the moors. I do not know whether this is so, but I have not noticed it in spite of being accused of putting the hives in rows straight enough to satisfy a sergeant major. Surely it depends on the position, whether they have landmarks or not. If they have no such landmarks as is often the case at the moors, they probably would drift; but the same would apply if they were situated in a similar position at any other time of the year. I don't know. I may be wrong.

Again, bees are accused of being bad tempered when at the moors. I have known them absolute devils when one could hardly get within sight of the hives without being "shot," but aren't they the same if the flow stops at home? At other times I have manipulated them without any protection whatsoever, just as one can in a July flow. Don't you think it is the conditions ruling at the time rather than the source of nectar? Or is it just locality?

The three main varieties of heather which are of use to beekeepers are **Erica tetralix** and **Erica cinerea**, bell heather. The latter is the more common of the two, and I believe the best of the Erica; but the real heather honey comes from the ling or **Calluna vulgaris** with its myriads of purple-pink or white flowers forming leafy racemes making a magnificent rolling carpet as far as the eye can see, varying in height from a few inches on a poor sandy soil to three or four feet on the more suitable soils. According to Bentham & Hooker it is "the most widely distributed of all heaths, extending over central and northern Europe to the Arctic Circle, eastward to the Ural, and westward to the Atlantic, also occurring in the Azores, Greenland, and very rarely in northeastern America, in Labrador and Massachusetts. In Britain very abundant."

Heather supplies fairly abundant pollen of a fawny grey colour, which no doubt helps considerably towards good wintering, being covered with honey almost immediately. This raises another point: Do bees winter satisfactorily on heather honey? According to Brother Adam they do not and he removes much of the honey and feeds syrup. He has had far more experience than the writer and should know. Nevertheless, I am not alone in stating that it appears to make no difference, but one needs many years of wintering to be able to draw definite conclusions.

Nectar Secretion

What do we know of this, the most important part of our work? Why is it that so little organized research has been done on nectar secretion? John Lovell, in the United States, Maclachlan in Australia, and many others have contributed valuable work. But what a drop in the ocean!

In England most of the commercial producers operate on soils with a high lime content, in the chalk belt which is found running up from Dorset, on the south coast, through the Chilterns and up into Norfolk, across the Wash into Yorkshire; you get it again in the Cotswolds and elsewhere. I believe that in the United States, as well, the "clover belt" in particular is on soil with high lime content. The lime loving plants consist largely of legumes

which are known to require this chemical to make satisfactory growth. But is it necessary that a plant be well-grown to secrete nectar? Is it the same with cotton which, I understand, requires a rich soil with a high lime content and plenty of moisture. It is also apparent that different plants require different soils; for instance, acid soils for heather, and then the Black Mangrove prefers a salty soil.

But this is not all; what about the soil temperature? Dr. Moore Ede, of England, has gone a long way to show that it has a tremendous effect on the production of nectar. As he suggests in the "British Bee Journal," it gives a very feasible explanation for the heather failure in 1936 in spite of the weather being glorious for several weeks during the flowering period. Soil has another way by which it can affect the crop, that is, by its moisture-holding qualities. It is by these bitter experiences that we learn. The season of 1937 was a good one for heather in most districts, August and September being fine and warm with apparently perfect conditions for nectar secretion.

According to one large producer in the New Forest in the south of Hampshire, the soil is fairly heavy and moisture holding; the scale hive gained approximately three pounds a day for a long period, making an excellent crop. This was at an altitude of from 400 to 500 feet, which also tends to show that the higher one gets toward the thousand foot line the better are the quality and quantity, for the writer's bees were situated about fifty miles away to the north of the county on Greensand, about 200 or 300 feet up. In one lot the strongest came back with almost enough for winter; whereas about four miles away another lot came back in many cases lighter than they went. The heather turned quite brown causing a total failure.

—ABJ—

From Our Honey Plant Gardens

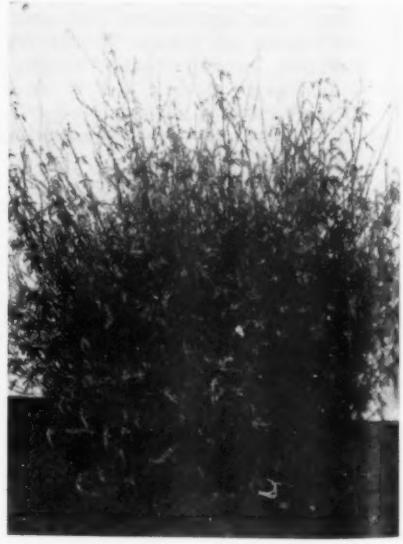
By Frank C. Pellett,

Illinois.

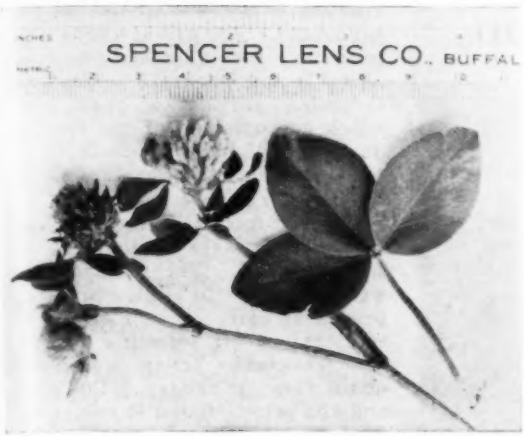
The plot at the left is of Melana clover in bloom at the Experiment Station, at Saskatoon, Saskatchewan. (Station photo.)
Plot below is at our honey plant gardens at Atlantic.

Zofka Red Clover

When the project was started it was my good fortune to secure seed of the Zofka red clover direct from Dr. Zofka, the plant breeder, who has developed it as a result of twenty years of special work. This plant is very similar to ordinary red clover except that it has a short flower tube which enables the honeybee to reach the nectar. This is something that has been discussed by



Single plant of Melana clover. (Saskatoon Station photo.)



Left, bloom size, by measuring rule, of Zofka clover. Right, typical stems and heads of Zofka.

the beekeepers for half a century since the large fields of red clover on the American farms seemed to offer a large amount of potential bee pasture.

Results of our first year with Zofka clover were reported in detail in the October, 1937 issue of American Bee Journal. A larger area was seeded in the spring of 1938 so that we now have more than an acre under observation.

There has been serious question as to whether this plant would prove adaptable to our Mid-western conditions and it is too soon even yet to be sure on this point. Our small plot wintered successfully last season. Although it was a relatively mild winter it was the driest winter in the history of the Iowa weather bureau and there was one short period when temperatures dropped quite low. As far as we are able to tell the plant is winter hardy so far.

In late spring there was a time when both the new seeding and the overwintered plot showed serious injury from leafhoppers. They seemed unusually injurious and similar injury was apparent on alsike, white Dutch clover and alfalfa in adjoining plots. Visitors expressed the opinion that the injury was no more apparent on the Zofka clover than on the other varieties.

Later the plants recovered fully and late growth was very promising. Thus the new planting went into winter in good condition except for the fact that the ground is very dry.

Because of the setback from leaf hoppers and a period of dry weather in midsummer, the new planting did not come into bloom until late. October flowering comes too late to produce much seed. However, we do not usually expect to secure a seed crop from red clover until the second year. With good wintering we look forward hopefully to 1939 to see what will be the result. Thus far the blossoms of the Zofka red clover have set seed with unusual freedom. If it will do as well under field conditions as it has done in the garden plot, we will be greatly pleased.

Alpha Sweet Clover

The alpha sweet clover is a white flowered biennial sweet clover with fine stems. The name is suggested by its resemblance to alfalfa. In the year 1924 at the Field Husbandry Seed Farm at Saskatoon, Saskatchewan, a few plants in a field of Arctic sweet clover were found which were different in their habit of growth. Instead of the coarse stem common to that plant, they had fine stems with numerous stalks resembling alfalfa. Only six plants were found which were fully fertile. Seeds were germinated in the greenhouse and planted in the open field in June. Some of the resulting plants were similar to common sweet clover while others had shorter growth, greater leafiness and more numerous and finer stems.

From this beginning the continued selection has resulted in the strain later introduced to the public as "Alpha Sweet Clover." Because it is only about one half the height of common sweet clover and has a much finer stem, it is far better suited for hay and it is this character which recommends it as a farm crop.

Our plot has been established only one season so there has been no opportunity to observe its second year behavior under our conditions. The first year growth, however, has been light and the plant does not look very promising at this stage. In the North, reports appear to be generally favorable and it seems probable that it will be more valuable for colder regions. Further observation is necessary to determine its value for us.

Melana Sweet Clover

In the spring of 1938 we received seed of a new annual sweet clover of dwarf branching habit from the Canada Forage Crops Laboratory at Saskatoon, Saskatchewan. At that time it had not been named, but later the name "Melana" sweet clover was adopted.

A single plant which blossomed freely the first season was found in a field of alpha sweet clover in 1932. A number of cuttings were made from it which were rooted in the greenhouse. Self fertilized seeds grown from the cuttings were planted in 1933 and about 100 plants resulted. All the plant proved to be true annuals, blossoming and maturing an abundance of seed the first year.

The crown of the plant forms from 7 to 18 stems and these in turn are much branched. **Thus we have an annual sweet clover which is very similar to alfalfa in appearance and which offers a similar opportunity for cutting for hay.**

Our plot was planted in April and seeds germinated promptly. The plants grew rapidly and by early July were beginning to bloom. The flowering period was much longer than ordinary sweet clover and continued for several weeks after the common sweet clover had matured. The bees sought the flowers with the same eagerness that they do all sweet clover flowers and there was every appearance of a rich yield of nectar.

Visitors appeared more interested in this new sweet clover than in anything else in our plots with the possible exception of the Zofka red clover. The fine stems overcome the common objection to sweet clover because of its coarseness. It was a common opinion that this Melana clover should find a place in the farm rotation in the Midwest. It should provide a means of supply of an emergency hay crop not otherwise available in this region.

One season is hardly sufficient to test any new crop and a small plot is inadequate to determine its full value, but this plant is very promising. The root system is smaller than that of the common sweet clover, but it should provide means of fixing nitrogen in the soil in short rotation while producing forage suited for either hay or pasture.

Fancy Comb Honey Still on Top

Left, Harold Struthers, (Florida), who raises queens for the Company; center, visitor, L. C. Dadant; right, chief L. A. Coblentz.

WE hear much about the cost and difficulty of producing fancy comb honey and how little it brings, but the C. B. W. Honey Co., in Minnesota, has found, in these days of cheap soup production, how to get fancy comb and still make it pay. This company is probably the largest to produce comb honey in the country. It is owned and managed by L. A. Coblentz, Enos J. Baker, and Julia A. Waller, their initials forming the name of the company. In summer Harold Struthers, of Florida, rears queens for them and extracts what honey they have to extract.

C. B. W. comb honey may be seen on many markets and universally it brings an exclamation of "How beautiful." For quality and grade, above all else, has brought them a preference in distribution that would be hard to equal.

They have about 1400 colonies, wood painted with aluminum, very pretty; a new honey house; nice equipment. And do they use queens! Only the best and 2000 of them a season. Good stock is more essential in comb honey than for extracted honey where, sometimes, it seems most any queen will do.

They have been comparing results from package bees in comb honey production with results from over wintered colonies and now feel that packages make the best comb honey producers. Even over wintered colonies with young queens do no better and often not as well as the new packages. Mr. Baker ventures the opinion that when the package is hived on foundation instead of old brood combs, they are used to working out foundation and so, bee like, continue just as readily with the comb honey foundation. On the other hand, the old, over wintered colonies start the flow by filling their drawn combs and are slow to draw out the foundation in the section supers.

Probably few have applied a study of bee behavior to their business as well as these folks. After all, we can only take advantage of the habits of the bee; we can't change them. So successful beekeepers, as Dr. Phillips has so often said, are those who "know their bees."

—ABJ—

British Columbia

The 1938 honey crop is a record in British Columbia with the interior of the province at the head of the list. The crop, 1,584,120 pounds; 1937, 1,427,475 pounds; 1936, 1,129,725 pounds. Commercial beekeeping is gaining ground.

According to Hon. K. C. MacDonald, Minister of Agriculture's release, the inducements to beekeepers are good. The Okanagan, Shuswap and Thompson valley again head the list of producing centers.

The average honey production in the three valleys was 115.8 this year compared with 99.6 in 1937. The honey is of high quality from alsike, alfalfa and fireweed. On Vancouver Island the fireweed in up-island districts is one of the most valuable sources.

Bees were first imported there from Oregon in 1860 when J. D. B. Ogilvie established a small apiary in the Gorge district. Prior to the introduction, honey was quoted at $1.00 per pound. The average price to the producer for the highest quality honey is now about 10 cents. British Columbia provides a good market which consumes all of the local production and imports about a half million pounds from eastern Canada.

The story goes that bees were introduced into the Okanagan Valley before they were brought to Vancouver Island. The Okanagan bees were brought to Kelowna by the priests in early Mission days. It is said that nectar secreting flowers in the Okanagan Valley were inadequate for the needs of the colony, and the priests found it necessary to feed sugar syrup.

With the coming of irrigation, the growing of alfalfa and orchards, bee pastures increased as they also have in other sections of the southern interior, and where it is possible to prevent loss of bees from spray poisoning, the honey industry is a valuable branch of agriculture.

F. H. Fullerton,
British Columbia.

—ABJ—

Two Comments

By Allen Latham,

Connecticut.

ON page 561 of the December issue Harold Luckner tells us what we can not do. I have kept bees 54 years and have had during that time probably more than one hundred apiaries. I do not run large apiaries but keep only twenty to thirty in a place. I have arranged the hives in all sorts of ways, but began some 35 years ago to place them in pairs, and today when I establish a new apiary, if possible, I place the hives in pairs. An apiary of twenty hives will have 1 and 2 paired and 3 and 4, etc.

Many and many a time have I seen it demonstrated that bees have a very keen sense of right and left. If bees work at the left of the entrance and this end is blocked, they will worry a great deal before they will enter the right end which is left unblocked. If for any reason a hive is taken from its stand, the home-coming bees will not go into the paired hive, but rather take a corresponding hive of another pair. For example, if hive 6 is taken away the bees will be very slow about going into 5 and will go into 8, 10 or 12 or some other even-numbered hive, especially if that is back of 6.

My reason for placing hives in pairs was partly to prevent or lessen drifting, or mixing. Twenty hives can be placed in pairs safely on a smaller plot of ground than if they

are placed singly. I am perfectly willing to state that Mr. Luckner, if he will experiment, will find that bees drift less in apiaries of paired hives than in apiaries of single hives.

He fears foulbrood. I happen to have an apiary which has been more or less contaminated with American foulbrood for some eight years, due largely to the carelessness of a neighbor beekeeper who was leaving diseased and dead colonies open for robbing. Though there are instances in this apiary of paired hives becoming diseased, as a rule only one of a pair has been infected. Going through the apiary, 1 and 2, 3 and 4 have remained clean; 5 has been diseased and shaken; 6 has stayed clean; 7 has been treated and 8, 9, 10 and 11 have stayed clean; 12, 13 and 14 have been diseased; 15 and 16 have stayed clean; 17 has stayed clean, its mate 18 became diseased; 19 and 20 have stayed clean, also 21, but 22 has been diseased. Each year for some five years from one to four or five hives have come down with American foulbrood, but seldom in pairs.

Mr. Luckner condemns the cleaning out of supers. Now can he suggest some better plan? When I leave my supers wet they are fermented the next year and dauby. When set in the apiary they start an uproar. If cleaned out in the fall they are dry and sweet in the spring. Of course I am very careful to set aside any super coming from a diseased colony.

Page 547. I shall answer Mr. Diemer's question, but I well know that the answer will not be satisfactory. The three bodies of combs were under like conditions and the bees in them responded to some outside influence, the stimulus coming at the same time for the three. My question is: Why should any one of them swarm when there was no queen present?

Many times in my queen-mating yards I see a similar phenomenon. On a very hot day there will be absconding of the small colonies. Suppose we have fifty of these colonies in a scattered group, all with queens of the same age. Among that group will be smaller groups, and from one or two of these smaller groups every little colony will abscond while other smaller groups will not have any absconding. We see from this that though the hives are separate there must be some influence which pervades certain groups, while other groups do not feel the influence. What would be the fun of beekeeping if there were no mysteries? I am pretty well acquainted with the conditions in these small colonies which will bring on absconding but do not yet know why the "disease" is catching.

I may not have made myself clear. I use the baby mating box. I set these boxes in the mating yard in groups of about fifty—group A, group B, etc. About fifty cells are matured at a time and put into one of these groups. The baby mating box, if properly started and properly fed is all right until the queen has been laying several days. I generally pick up the queens ten or eleven days after cells have matured. If due to a rainy spell or other cause there is delay in picking up the queens, a hot day is apt to start absconding. We will say that we go to group D after such a delay. Normally I should find between forty and fifty laying queens. I may perhaps take a queen from each of seven boxes running, then boxes 8, 9, 10 and 11 will have no queens. I then find queens in the next five or six boxes and then again come three or four with no queens. I think this will make clear what I mean by the "disease being catching."

Bees surely do have some mysterious way of communicating their feelings, if not any actual thought, and hence they will react simultaneously to that feeling.

In some way Mr. Diemer's three bodies of bees and brood responded simultaneously to a feeling that may have actually been transmitted in some way we know nothing about.

—ABJ—

N. E. France Operation

We have just learned that N. E. France passed through a successful major operation at the Madison General Hospital at Madison, Wisconsin and is now recuperating.

Mr. France, writing from the hospital, stated that he was gaining and hoped to be home before long. We know this will be welcome news to his many old associates and countless friends in the beekeeping industry.

—ABJ—

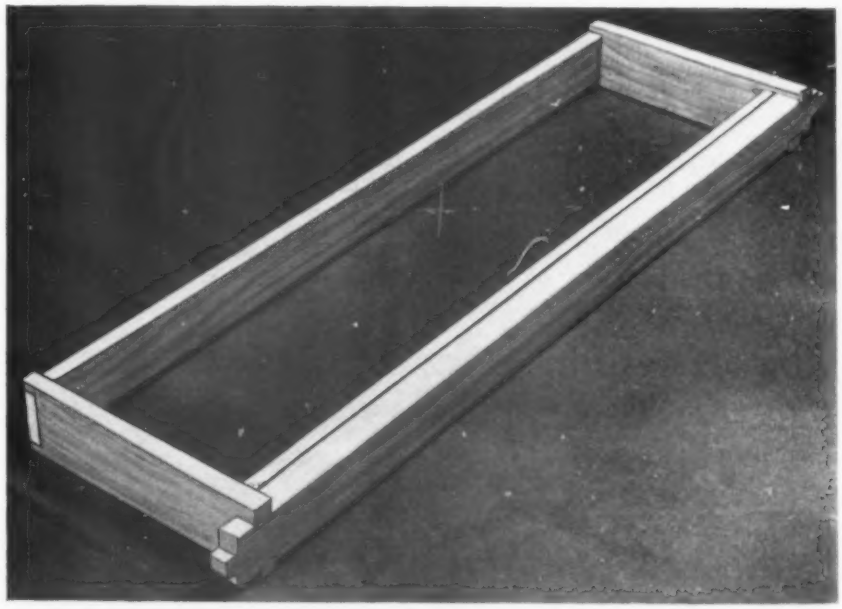
To Collect Bees in The Honey House

When I am extracting honey from combs in which there are still a few bees, I hang a comb of brood up in the window to which the bees are flying most frequently. You often get enough young bees to make a nice colony in this way. When you are done extracting, put them in a hive body, give them some wet combs plus a queen or queen cell and close the entrance for two or three days. They may even store a super of fall honey.

John Bruce, Illinois.

—ABJ—

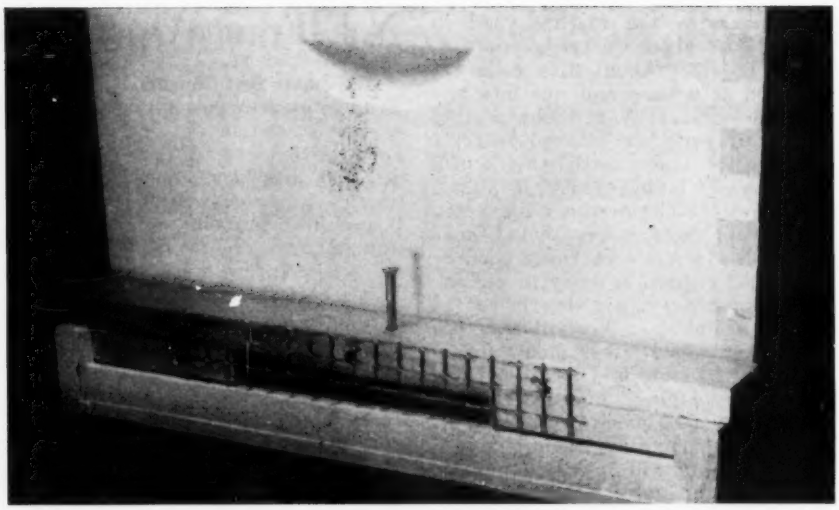
Bulk Comb Honey Frame



Here is the Lewis bulk comb honey frame, for those who are using shallow supers for the production of bulk comb honey. The frame itself is like the one used by George Harrison and featured in our pages some time ago.

In using these frames, one gets a quality finish and a heavy weight slab of honey which may be cut up into small or large pieces to fit any package or wrapper which may be used for the bulk honey market.

Apparently the market for bulk comb honey is being developed gradually and successfully and we hope that it is an item which will be found very acceptable to the consuming public.



Entrance guard in place on hive front.

Another Entrance Guard

By Charles D. Sheldon,

Illinois.

HERE is an entrance protector I have worked out and tested in my apiary. I think the picture and drawings will give you an idea of how it is made.

It is only necessary to set it in front of the entrance of a standard 10-frame hive, turn the little screw down to hold it on and the hive is ready for winter. The strip of hardware cloth in front makes the protector mouse proof. The protector excludes drafts and light. It is robber resistant.

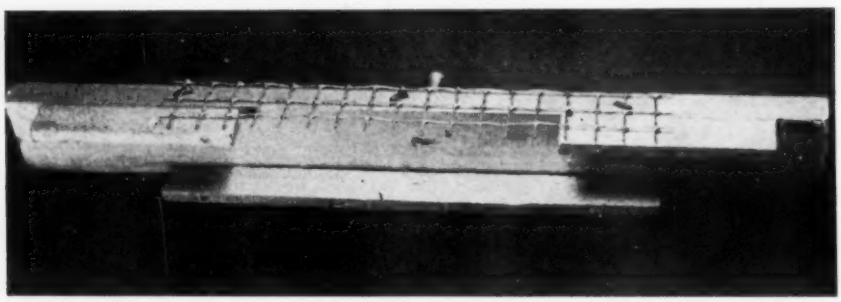
I have been interested in the effect of the two passageways and have noticed that on warm days and evenings a current of air is generated by the bees so that it goes in on one side and out on the other. The bees seem to be contented when this guard is on but when the regular entrance reducer is used, the bees gather outside when it gets too warm.

If the guard is to be used as a top entrance protector, a bottom board about 3 or 4 inches wide and 16¼ inches long may be added which will also serve as an alighting board. Then two blocks 2x⅞x½ inches may be used to close up each end: two holes bored at each side of the front part of the hive and you have a well protected top entrance.

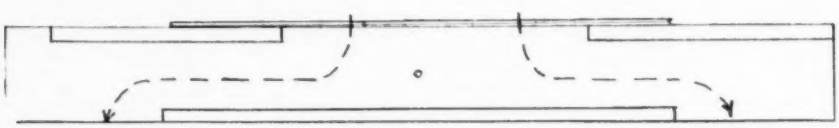
The most protected entrance I have ever seen was in a bee tree and consisted of a hollow limb 6 inches in diameter, broken off about two feet from the trunk of the tree, making a two foot tunnel into the brood nest, giving ample protection to the bees from cold drafts and robbers.

The standard entrance reducer gives too little protection to cold, windy weather and not enough ventilation for strong colonies in food chamber hives in warm weather.

I thought something of patenting this guard but have decided not to do so. If it is worth anything to beekeepers, let them have it as my contribution.



Above, guard turned on side to show details of construction. Below, diagram of bottom guard to show bee path, either side, into hive entrance.



—ABJ—

New Zealand Loses Pioneer

The death occurred at Whangarei, North Auckland, New Zealand, on October 11, 1938, of Mrs. Charlotte Green, wife of H. H. Green. The passing of Mrs. Green severs another link in the chain of pioneer beekeepers, for Mrs. Green was a daughter of the late Mr. W. Broughton Carr, the distinguished English apiculturist instructor.

Mrs. Green settled in the Whangarei district twenty-six years ago, where at Oakleigh her husband carried on dairy farming and commercial fruit growing. Mrs. Green personally attended the apiary and was an evangelist for honey and its beneficial effects on the health. Moreover she was a firm believer in the study of bees and beekeeping, bringing rest and contentment to the mind.

Genial by nature, it may be said of Mrs. Green that she left the world a little better than she found it. Her energies were ever devoted to the unfortunate and the afflicted. For over twenty years, her annual picnics were eagerly looked forward to, the proceeds from these, and from the many theatricals she produced, being in aid of Dr. Bornado's Homes, London.

Mrs. Green had in her possession many of her father's books on beekeeping. Illustrated in these are the numerous contributions made to English beekeeping by the late Mr. W. Broughton Carr. Uncapping knives, frames, extractors, hives, etc., are shown with the brand W. B. C. One text book, written by Mr. Simmins, the well-known authority on English beekeeping, has the author's inscription "To Mr. W. Broughton Carr, with author's compliments."

Mrs. Green leaves, besides her husband, two sisters residing in Whangarei, North Auckland, N. Z., the Misses Broughton Carr.

T. T. Jones,
Mangapai, N. Z.

Professor Scullen Teaches City Folks

Formal education in bee raising actually exists. In Portland, Oregon, a course in "The Habits and Management of Honeybees" was taught by Associate Professor H. A. Scullen, of the Oregon State College, during the fall term of the Portland Center of the State System of Higher Education. Designed for those in the metropolitan area interested in bee culture, the course consisted of a two hour lecture and discussion period every Tuesday night. On one evening a five-reel film was shown, "The Realm of the Honeybee."

"The students secure credit, of course, but only a very small percentage of them are taking work for credit," said Professor Scullen. "Some are themselves beekeepers, some are teaching nature study, a few are stenographers, one man is a physician, one sells beekeeping equipment, and several keep bees as a hobby. Petitions have come from others who would have liked to take the course, but did not hear about it in time. In the spring term it may be available again in the Portland Center, which offers evening courses for the University, the State College and the normal schools."

Donald Wood,
Oregon.

———ABJ———

Firestone Has Bee Program

The Firestone Tire and Rubber Company, has been presenting a series of programs in which they describe and interview large successful farmers in practically every branch of agriculture. The writer had the pleasure of listening to a program recently which was an interview with J. F. Brady, of North Dakota, a large grain and stock farmer who has several hundred colonies of bees as a side line.

We have heard many radio bee programs, but we believe this one was as accurate and interesting as any we have ever listened to.

These programs are, naturally, advertising programs but they do show the high lights of successful farming in all lines and particularly try to show how the big farmers can make a success of side lines such as potato growing, beekeeping, etc.

A Gentleman in Disguise

Whether from modesty, bashfulness, or downright cussedness, we have not been able to determine. After seeing his picture in November, on page 499, this gentleman decided to hide in the present manner. However, it is difficult for him to disguise the hairless area which proves that this is a picture of the same man. We love you just the same, Jim. Go on with the work. We are shouting for you.

Burdge Makes Imperial Exhibition

A reputation won during the past five years has gained for Sydney Burdge, of Macleod, Alberta, the honor of furnishing honey for the province for the Imperial Exhibition. Samples recently shipped, by request of the beekeepers of the province, were under the care of the provincial government. According to the report from the government, Mr. Burdge's honey is 2 per cent above the provincial standard, the finest of all samples received by the National Food Products of Calgary.

Burdge, starting with a few bees in 1933, now has 143 colonies. He came to Canada from Somersetshire, England, where he first began beekeeping, and is now also engaged in ranching and farming.

F. H. Fullerton,
British Columbia.

———ABJ———

Migratory Beekeeping

Migratory beekeeping is getting a black eye. Laws are passed barring entry of bees on comb in several states and soon we will all have to stay home and root hog or die. We do not object to strict inspection laws, however.

Alfred P. Johnson,
Illinois.

[We agree with Mr. Johnson in this criticism—Editor.]

———ABJ———

Balsam Wool

This picture shows how a blanket of balsam wool on top of the hive can be used for winter satisfactory. It is fine insulation. It is widely used for insulating houses and should be well adapted to the apiary.

Alan Ammann,
New York.

With freedom under inspection to move to new pastures, denied by embargoes, commercial beekeeping faces gradual restriction that will seriously reduce it.

Trade Barriers Between States A National Problem

AN item in "The Market Growers' Journal, for November 15, carries this title to comment on state laws restricting the movement of trucks in interstate commerce. These restrictions are of importance to beekeepers also because migratory beekeeping is a practice on which commercial honey producers must depend for a profitable return on their investments.

Laws that prohibit the free movement of bees on combs because of the fear that it must result in the distribution of disease, may also finally result in a lasting throttle on the industry. When efficient inspection has determined that bees are safe to be moved, there is no reason at all to restrict the movement. The black eye given to migration comes from outlaw migrators who make no attempt at all to respect the interests of other beekeepers in the matter of disease distribution.

As we have repeated before, we believe the Texas program is the best solution of this problem. We commented on it at length in November in "Editorials" and in "All Around the Bee Yard, "and published the new Texas regulations in detail. Briefly, to move bees into Texas, permission must be obtained from the State Entomologist, College Station, Texas. Application for permission must be accompanied by a certified copy of a certificate of inspection from the state of origin certifying to the apparent freedom from disease of the bees to be moved, based on actual inspection within a period of sixty days before the date of shipment. This certified copy must be filed ten days in advance of shipment and permit issued, with the names of the consignor and consignee. Shipments of bees arriving in the state not so certified shall be subject to confiscation and destruction.

What more protection can we set up against the dangers of migration? This should satisfy every objection and still permit this legitimate movement to continue. Any attempt otherwise to muzzle this important practice can only result in harm to the industry.

The market growers in the article mentioned, also, point out the restrictions which govern the movement of trucks which impose severe barriers on the transportation and handling of perishable fruits and vegetables. There are three restricting regulations, Dr. George R. Taylor, of the Bureau of Agricultural Economics, says, which affect trucking seriously: (1) Licensing requirements and taxes on out-of-state trucks; (2) regulations dealing with weights, sizes and equipment; and (3) port of entry laws.

Some states collect ton-mile taxes, and out-of-state private carriers must secure a license. States like Arizona, Kansas, Oklahoma, and Wyoming require out-of-state trucks to register and pay a fee, or pay higher ton-mile taxes than home trucks. Florida, Colorado, Minnesota and Virginia, while having strict license laws for out-of-state trucks, also liberalize them through what amounts to reciprocal trade treaties with other states.

Nevertheless, it all amounts to trade barriers laid down between the states, as though they were separate little nations. Where will it end?

———*ABJ*———

Owens-Illinois Counter Placards

Owens-Illinois furnishes to those who use their honey jars, striking three-color window posters, size 11x17, advertising honey for health, and suggesting several appetite-appealing uses for honey. Your dealers are supposed to show this poster with either a window or counter display of your honey. It is beautifully done in colors.

The Editor's Answers

Green Bay Region

What honey plants would grow here on the shore of Green Bay? At present there are a good many acres just raising wild grasses along the shore. WISCONSIN.

Answer.—Your section of the country would be particularly desirable for the different clover plants: alsike, sweet clover and the little Dutch white clover. All of these plants are doubtless around you as there are beekeepers in the Green Bay section.

We do not believe it would pay you to grow any plant for honey alone. However, it might pay you to purchase a quantity of both the yellow and the white sweet clover seed and distribute in waste places in order to help with the production.

More definite information might be obtained by writing to Professor H. F. Wilson, University of Wisconsin, Madison, who has done extension work all over the state and may be able to give you more definite data.

—ABJ—

Fermented Honey

We have nine hives. Some of them are filled with square section boxes and some with deep extracting frames. The honey in the sections is extra good but that in the frames is sour honey. It is well capped, only honey cells are filled with air bubbles and when cut foam, and the honey has a peculiar odor. Bees do not seem to be infected or sick, and the frames are well filled.

The hives get air from all four directions and stand in shade the greater part of the day. (1) What causes the honey to get sour? (2) Is the honey harmful to health? We have had bees for about eight years and never had this trouble. ILLINOIS.

Answer.—It would be our opinion that the honeybees have been gathering honey heavily during the fall season, perhaps from the aster blossoms. Where such a flow comes late in the fall and the bees are gathering honey fairly readily, there is always the possibility of a cold snap or several cold snaps interfering with the honeyflow and in some cases the bees, contrary to their usual behavior, may seal the honey before it has been thoroughly ripened. Then when a warmer spell comes or when the honey is removed to warm temperatures, the possibilities of fermentation become great.

Naturally, there is no remedy for this, but we advise extracting the honey at once and heating it to 160 degrees for a short period. Honey treated this way will never get back to normal, but it may be made satisfactory for sale or at least for bakery use.

—ABJ—

Crystallization of Comb Honey

Can you tell me how to keep honey from crystallizing in winter? INDIANA.

Answer.—There is no sure way to keep honey from crystallizing, paticularly honey that is inclined to crystallize readily. The only method to follow is that of keeping the honey stored in a place that is warm and dry, away from cold or dampness.

If the honey is thoroughly sealed, it is not nearly so inclined to crystallize as honey which has been exposed to the air. It is usually possible to store comb honey several years before crystallization begins.

—ABJ—

Feeding Honey

I am a small beekeeper and I would like to know if a person may be safe in feeding to bees honey which has been exposed to American foulbrood after it has been set in boiling water for thirty minutes, even though the honey itself did not boil. ARIZONA.

Answer.—By no means use honey which has been heated in a vessel of boiling water. To be absolutely sure of this honey, you will have to boil the honey itself for a half hour in a covered vessel, and even then there may be possibilities of spores surviving. At least this is the opinion of investigators. If you are going to feed the honey, we suggest that you do the boiling as above and then feed a limited number of colonies so as not to run the danger of a complete infection.

—ABJ—

Late Package

Early this summer I had a small colony of bees which later became infected with foulbrood. I shook the bees, starved them, burned out the hive and attempted to replace the bees. However, it had been necessary to burn the infected frames, and because of the late season the bees failed to build comb.

Since then, the bees have been dying steadily. I wish to save the queen, and I thought perhaps I could introduce a package of bees. Do you think it would work at this time of the year? OKLAHOMA.

Answer.—We doubt very much whether you will be able to do anything with the package of bees which you have shaken for American foulbrood and which have no combs at this late date. Even a new package of bees to which you could introduce the queen would hardly be worth your while, and we would not recommend it because we do not believe the colony would carry through the winter.

—ABJ—

Queenless Colonies

I have around fifty colonies of Italian bees. This summer and fall about a dozen of my good strong colonies have become queenless; either the queen has died or disappeared.

There must be some reason for it but I don't know what it is, do you? MARYLAND.

Answer.—It is rather unusual to have a dozen colonies out of fifty that have become queenless during the latter part of the year. Perhaps you bought packages this spring and the queens failed before the end of the season. Usually, however, even though the queens fail, the bees requeen themselves and you do not have so much queenlessness. In our 500 colonies, we will have perhaps that many queenless but we would, most certainly think something very strange had happened had we the proportion which you mention.

Perhaps the queen may have been lifted off in taking off the honey, or perhaps you had a swarming season quite late and the new queens which would have replaced the old ones never got mated. It seems something unusual must have happened in your case unless it was queenless through a gradual failing of package queens.

—ABJ—

O. A. C. Strainer

I have been rereading the article in the January, 1937 American Bee Journal about the O. A. C. honey strainer and have been wondering if I should adopt such a one. I have a gravity **strainer-heater** such as is now used by a number of beekeepers. In the article referred to it is stated that if honey is not strained before being heated it will darken and its flavor will be impaired. I doubt if there is much to this as I think my honey is the very best flavor as it comes from the heater, and it doesn't seem to me that it is darkened any. I notice that in the filtering process recommended by H. S. Paine and R. E. Lothrop, the honey is heated before being filtered.

What do you think of the O. A. C. strainer? It is quite simple and I could have one made and pass my honey through it before entering the heater. It looks to me, however, as if there would be difficulty with the honey not passing through the strainer, and also with honey granulating in it, if it were left set for a few days. Our sweet clover honey is very bodied and granulates quickly.

I don't suppose such a strainer can be bought ready made but must be made locally. I am wondering if the screen would be readily procurable. If not, could you give any advice regarding where it can be bought? MINNESOTA.

Answer.—The real purpose for which the O. A. C. strainer was devised was to strain the honey in the beekeeper's extracting plant at the time of extraction.

My contention is that the proper time to remove foreign material from the honey is on extraction from the comb.

To remove foreign material at a later date necessitates heating the honey to reliquefy it. The heat used to reliquefy this honey will melt wax and propolis into it.

Granulated honey quickly plugs the O. A. C. strainer. Therefore, I would not recommend its use when there is any danger of granules or crystals being present in the honey.

The wire cloth may be obtained in the United States of America from the Newark Wire Cloth Company, Newark, New Jersey, or the W. S. Tyler Company, Cleveland, Ohio. The strainer may be purchased complete from Messrs. F. W. Jones & Son, Bedford, Quebec, or the H. M. Clubine Company, Brantford, Ontario.

W. G. le Maistre,
Ontario Agriculture College.

—ABJ—

Ripe Honey

I have two supers filled with honey which are only one-third capped. What can I do with the honey? I fear it will ferment when extracted. ILLINOIS.

Answer.—At the close of the season, bees frequently do not gather enough honey to warrant capping all that they store but the honey in the cells is nevertheless ripe enough to extract. As a matter of fact, the honey at the close of a season is much more likely to be well ripened than during the height of the season when bees harvest honey very rapidly and when the weather is warm and the nectar thin. We do not believe you will have the least trouble if you extract this honey. If it does not shake out of the combs when the comb is jerked sharply up and down, the honey is ripe.

At the Illinois State Fair

Were you there? Some gay and colorful exhibits and some prime exhibitors in 1938 and the usual efforts to tell the public. The pictures (camera Hoyt Taylor) tell something about it.

The Ladies (top)—Bessie Musselman and Stella L. Gill, in charge of the honey cookery booth in the food show at public cooking school, which Ethel Van Gilder, Home Economics expert, conducts at the Fair. They passed out leaflets and demonstrated the many ways honey may be used to make foods tempting, delicious and tasty. These two pleasant and winning ladies did much to move your crop, Mr. Illinois Beekeeper. Over 700 pounds of Illinois honey was donated to this booth for prizes and premiums and for popularizing honey.

The Huddle (center) — Chief Killion and Virgil Rocke, told visiting beemen what bee disease is, what it looks like, what to do for it, and many things about bees and beekeeping they really wanted to know. Rocke tried to pull them into the fold of the state association. Leroy Stockdale also helped in that effort. All three did much to put leaven in the loaf that makes Illinois a beekeeping state.

The Five (bottom)—Bodenschatz, Osborn, Peterson, Taylor, and Wooldridge. All but Osborn were exhibitors. Two of the exhibits are on the page opposite. They have shown for eight years without a break and they will tell you, while it is work and sweat, it's fun too; so come in, you Illinoisans, and give them competition. But you'll have to be good!

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Union Agricultural Meetings Massachusetts Department of Agriculture Cooperating, Worcester Auditorium, Worcester, Mass. Thursday, January 5, 1938.

9:30 A. M.—Annual business meeting, Massachusetts Federation of Beekeepers' Associations. Address of the president, George A. Meigs, Essex County Agricultural School, Hathorne, Mass. Business and election of officers.

10:00 A. M.—"Recent Observations in Beekeeping," Dr. Frank R. Shaw, Massachusetts State College, Amherst, Mass.

10:45 A. M.—"New Beekeeping Facts for Massachusetts Beekeepers," James I. Hambleton, in charge, Division of Bee Culture, U. S. Department of Agriculture, Washington, D. C. Discussion and questions.

1:30 P. M.—"Government Laboratory Experiments with the Diseases

of Bees," James I. Hambleton. Discussion and questions.

2:30 P. M.—Honorable William Casey, Massachusetts Commissioner of Agriculture.

2:45 P. M.—"Beekeeping Experiences in England," Arnold M. Davis, Massachusetts State College, Amherst, Mass. Illustrated talk on bees—films prepared at the government laboratories.

3:30 P. M.—Business meeting, Mr. Meigs, presiding.

The public and all interested in beekeeping are invited to attend.

—ABJ—

Peterson and Taylor Illinois Exhibits

At the left are Hilda and Dorothy (commonly known as Mrs. Taylor and Mrs. Peterson) behind the fence of Peterson's grand exhibit at the 1938 Illinois Fair; at the right, the same two ladies looking over the fence from Taylor's exhibit (don't quite dare call it Hoyt's, because Hilda might object). There were eight exhibits like this, showing approximately 1,000 pounds of honey and 50 pounds of wax, and also four amateur exhibits. Many items are used to make up exhibits like these, including miniature apiaries, honey crop equipment, and so on.

—ABJ—

Meeting at New Orleans

Twenty-six states were represented at the big New Orleans meeting held at the Roosevelt Hotel on December 5, 6 and 7. It was a joint meeting of the American Honey Producers' League, American Honey Institute, Queen Breeders and Package Shippers' Association, and Apiary Inspectors of America. With committee meetings, general discussions, and various group conferences, it would be difficult to report the meeting chronologically. We shall endeavor to give some of the high spots.

Marketing Agreement

The meeting of the Queen Breeders and Package Shippers' Association was held before E. M. Graham, who represented the government. Signatories to the agreement totaled 87 per cent of the volume of the industry. The Secretary of Agriculture therefore issued an order declaring the agreement in effect for one year from September, 1938. Provisions of the agreement and order are already in the hands of the shippers.

Prime requirements are that all shippers shall file prices with the control committee if they expect to sell bees during 1939. Such filed prices will be in effect until new prices are filed, and new prices may be filed at any time and will go into effect ten days from the date of mailing. The control committee is empowered to fix the amount of the levy on packages and queens for operation, with the stipulation that any unused balance at the end of the year is prorated to the shippers in proportion to their payments.

Shippers were almost unanimously in favor of a six months' instead of a ten days' filing period. Mr. Graham explained that the law did not so provide. In short, shippers have the opportunity to make their own prices provided they file such prices according to the law; such filing may occur every ten days; pro rata fees on packages and queens shall be paid to the director of the control committee; unfair trade practices are outlined and prohibited. Proper provisions are included in the order for it enforcement.

J. M. Robinson, of Auburn, Alabama, was re-elected as managing director. Members of the control committee consist of T. W. Burleson, of Texas; J. W. Newton, of Louisiana; W. E. Harrell, of Alabama; M. S. Fortune, of Mississippi; H. F. York, of Georgia; and J. E. Wing, of California. All were present except Mr. Wing, who was represented by his alternate, Willis Lynch.

We urge that anyone interested in the trade agreement and order request a copy of Mr. Robinson.

Apiary Inspectors of America

Chief discussion of the apiary inspectors was favorable to a more close cooperation between state inspectors on interstate shipments. Sentiment seemed unfavorable at this time to federal inspection and regulations. It was recommended and adopted that James I. Hambleton, of the Bee Culture Laboratory, be requested to investigate all present bee laws, all present requirements, and prepare what would amount to a "Model Bee Law." This model law would be submitted to M. S. Yoemans, president of the National Plant Board, with the suggestion that the Board adopt and recommend it for all states. Such action would do much to obviate the difficulty of sufficiently regulating the promiscuous interstate movement of bees. It would likewise protect the mover of bees so that he would not be confronted with a different set of regulations for every state he entered.

There was considerable discussion relative to the so-called embargoes on bees on combs, used equipment, etc. While no action was taken, consensus of opinion was that such prohibitions were to be avoided, wherever possible, and that closer cooperation between inspection de-

partments and more closely guarded and observed restrictions and regulations were preferable.

American Honey Producers' League

President Harrell and Secretary Bohne, as well as Mr. Anderson and Mr. Whitcomb, are to be commended on the proper care and precision with which all conferences and group meetings were conducted.

Outstanding among the talks were those given by the workers in various field stations and departments, of whose activities we know too little, and in whose behalf, as a consequence, we make too little agitation.

Harold J. Clay, of the Bureau of Crop Statistics, believes that the beekeepers could accomplish much in honey distribution by embodying in their Institute a service like that in other similar industries. The peanut growers selected a peanut week and contacted 37,000 chain stores who were glad to publicize it. The "Use More Butter" campaign was backed by the National Milk Producers' Cooperative of 350,000 members with much free publicity. The citrus industry in their national campaign enlisted the cooperation of 153,000 independent grocers and food chains, restaurants, chain and retail drug stores, totaling 250,000 retail outlets. The Potato Association gets state help in many states. The apple men have a national apple week.

C. L. Farrar, of the Wisconsin field station, discussed bee population and honey production ratios. Cost of production is directly affected by these ratios. For instance, a colony of 15,000 bees may produce one pound of honey per thousand bees. Under like conditions a colony of 30,000 bees will produce 1.35 pounds per thousand bees; a colony of 45,000, 1.45 pounds; and a colony of 60,000 over 1.52 pounds. Adding packages to producing colonies during the honeyflow has been experimented on, with a question as to whether profit above cost of package can be assured. A similar relation exists between the size of a colony and the amount of brood it can produce.

R. E. Lothrop, of the Bureau of Chemistry, discussed his work with honey to which he devotes full time. The work so far has consisted in gathering data on the behavior of honey, both physically and chemically. The large number of different honeys makes the task complicated. It is hoped that this work can be correlated so as to be able to help the problems of bakers, candy makers, and other manufacturers to utilize every type of honey. Honey's ability to retain moisture is a desirable attibute but cannot be fully utilized until such properties are definitely measured. We hope to give a more general discussion of Mr. Lothrop's work later.

A. P. Sturtevant, of the Laramie station, discussed disease resistance. In their experiments, line bred bees seem to carry this resistance better than cross bred bees. Tests have been made in desert wastes, allowing colonies to be robbed out and noting the resistance. The feeding of doses of honey of known infection has also been tested. While not entirely identical, the results of all these experiments corroborate the results obtained by Park at Ames. Resistant colonies of all such experiments are retained, from which are bred new colonies. The result of field cooperators is not entirely satisfactory, owing to the scattered nature of such cooperators and the fact that most are busy honey producers whose heaviest work comes just when cooperative attention is needed.

The California Field Station, according to Mr. Todd, has some very interesting work started having to do with nectar secretion of honey plants. The nectar of individual blossoms is gathered and measured, both as to quantity and sweetness. There is considerable variation in individual specimens of the same flower. The logical conclusion would be to breed from the best honey producers and evolve a strain which might develop into a minor plant with heavy nectar content, or develop a forage plant which might become, like sweet clover, a great honey producer.

We hope to report later some of the activities of the Southern Field Station with its staff of five. To some extent they act as a source of supply for the other stations, but much of importance is developing there.

A well deserved honor was the selection of George W. Bohne as president of the American Honey Producers' League for 1939. Other officers are, Cary W. Hartmann, secetary; T. C. Burleson, of California, vice president; directors, E. H. Sachs, of Pennsylvania; Eugene Cutts, of Alabama; Lewis White, of Washington; T. W. Burleson, of Texas; Ward Monroe, of Montana. E. L. Sechrist, of Tahiti, formerly with the United States Bee Culture Laboratory, was chosen to honorary membership. California was selected as the meeting place for 1939.

— o —

New Jersey Association, Trenton, January 26

"Migratory Beekeeping in New Jersey," Frank Fekel, Henry Brown; "Ground Rent for Out-yards," Milton Stricker, Manager, Barclay Apiaries; "Cut Comb Honey," A. J. Hausenbauer, Clarence Kautz; "Colony Morale," Dr. E. F. Phillips.

6:30 P. M. Dinner. Dr. Phillips "The Price of Peace."

E. G. Carr,
Secretary-Treasurer.

Richard D. Barclay

E. G. Carr (New Jersey) under date of December 8, writes us of the loss of Richard D. Barclay, Riverton, New Jersey, who died suddenly of heart trouble, November 4, 53 years of age. New Jersey has lost her largest beekeeper.

At the age of eleven, Mr. Barclay secured his first colony of bees after his parents objected to his desire to keep chickens. Apparently his interest in bees was maintained, but no public expression of this was known until after his graduation from State College, Pennsylvania, when he lectured at Farmers' Institutes on bees as pollinators.

Mr. Barclay and Dr. Surface were instrumental in forming the Pennsylvania Beekeepers Association at Williamsport, Pennsylvania. Dr. Surface says, "Dick did not aspire to, nor accept, any office, preferring to remain in the ranks." Adding, "he was said to have all the books there were."

About 1912 Mr. Barclay first had the chance to enter the business of renting bees for commercial pollination. From that time to his death, his holdings and pollination work increased until he had 870 colonies, of which over 500 were rented annually to growers of peaches, pears, apples, blueberries, and cranberries.

Mr. Barclay was president of the New Jersey Association from 1916 to 1927, and chairman of the Public Relations Committee since the latter date. He wrote a correspondence course in beekeeping for Pennsylvania in 1905 which is still being used.

He was largely responsible for having research work on bee disease and pollination started at the New

Jersey Agricultural Experiment Station. For four years he was a member of the New Jersey Board of Agriculture and its Vice-President during the last year on the board.

At the San Antonio meeting he was made chairman of a committee to work for uniformity of bee disease control acts in the United States.

Many of us will agree with Dr. Surface when he says, "In the death of Mr. Barclay the science and art of apiculture has lost a most earnest supporter and a devotee, and many of us have lost a most able and worthy friend."

—ABJ—

On With the Institute

The annual meeting of the American Honey Institute was held at New Orleans on December 6th. While the meeting was not as large as some of the previous years, it made up in determination what it may have lacked in numbers.

The Board of Directors elected for 1939 are as follows: M. S. Stone, Ogden, Utah, chairman; A. G. Woodman, Grand Rapids, Michigan, vice-chairman; M. J. Deyell, Medina, Ohio, secretary; Directors, Harry E. Ingalls, Basin, Wyoming; Lewis W. Parks, Watertown, Wisconsin; V. G. Milum, Urbana, Illinois; J. E. Starkey, Indianapolis, Indiana; Robert E. Foster, Gainesville, Florida; L. C. Dadant, Hamilton, Illinois.

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Mrs. Harriet M. Grace

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the majority was chosen from the sustaining membership of the Institute. The retiring members of the Board are due a vote of thanks from the beekeeping fraternity for their long service and devotion to a worthy cause. All retiring members have pledged their wholehearted support to the new Board and the new staff of the Institute and to Institute finances.

The Executive Committee which has full charge of Institute affairs between board meetings, was elected as follows: M. S. Stone, Mrs. Luella Mortenson, Madison, Wisconsin; J. E. Starkey; M. J. Deyell; Robert E. Foster.

In these executives, the beekeeping public should have full confidence as they are all vitally interested in the welfare of the beekeeping industry. Their job will be to cooperate closely with the director of the Institute and to see that the affairs of the Institute are handled to the best possible advantage.

The Finance Committee that has charge of raising funds for the Institute were named as follows: M. J. Deyell; Roy K. Bell, Orange, California; A. G. Woodman; E. T. Cary, Syracuse, New York; J. W. Holzberlein, Grand Valley, Colorado.

These men not only are interested in the Institute but have been active supporters in a financial way. Their task to secure sufficient money to run the Institute so that it will function and grow, will not be an easy one. Beekeepers, supply manufacturers, honey bottlers, package shippers and breeders, and all connected with the honey industry are earnestly asked to come to the financial aid of the Institute and help this committee in carrying on.

The Advisory Committee was left to the present chairman, Lewis W. Parks. Mr. Parks has had long experience in work with the Institute as he was one of the prime movers in organizing the Institute in the first instance. Mr. Parks will continue with approximately the same committee as in the past year, with the addition of anyone who may apparently be of help in furthering the interests of the Institute.

The Institute Director. By unanimous vote of the six members of the Board of directors present, Mrs. Harriett M. Grace of Madison, Wisconsin, was chosen to manage the offices of the Institute for the ensuing year. She has been given full charge and will operate the Institute according to the directions given her by the Board at this meeting. Until the next meeting of the Board, she will be under the direct control of the Executive Committee.

The Institute is very fortunate in being able to secure the services of Mrs. Grace at this time. She is a resident of Madison, Wisconsin, and

a graduate of the University of Wisconsin, having majored in home economics. She is a food and nutrition specialist. She has also had work in radio and public speaking and has attended Oxford and Cambridge Universities in England. She was formerly an instructor in Foods in the Milwaukee Vocational School and has traveled widely in attendance at national educational conventions in the United States. Her experience also includes four trips to Europe. She was secretary-treasurer of the Wisconsin Home Economics Association six years, vice-president two years, and president of the Southern Wisconsin Economics Association two years. She has been vice-president and program chairman of the Madison Home Economics Club for 1935-1936, 1938-1939. She has served on the Mayor's Theatre Committee for six years and has been treasurer of one of Madison's largest Women's Clubs one year, chairman of the program committee three years and president two years. Mrs. Grace has been highly recommended by Mrs. Luella Mortenson of the Institute Advisory Board and by Miss Abby L. Marlatt, head of the Department of Home Economics at the University of Wisconsin. The Institute is, indeed, fortunate in being able to secure her services and after seeing her in action, the Board of Directors feel that their selection is a wise one.

In her address before the meeting at New Orleans on December 6th she outlined her ideas as to the work ahead for the Institute. These are tabulated as follows:

1. That no permanent addition to the staff be made until such time as finances will warrant.

2. That the Institute try to interest the teacher training institutions, the home demonstration agents, the consolidated and high schools in promoting the use of honey.

3. That the Institute try to secure time on the air for talks on honey and make use of speakers on the regular food programs.

4. That information concerning the use of honey in cooking and as a spread be disseminated as widely as possible.

5. That seasonal greeting in the form of uses of honey be distributed.

6. That a leaflet on table uses of honey be prepared.

7. That within the next year a new book of recipes supplementing the 100 Honey Helpings be prepared for distribution. That large quantity recipes be worked out for hotels, hospitals, and restaurants.

(I believe it is advisable to check all recipes with recent research in nutrition and that it is much better to have a few recipes than to try to flavor everything with honey for honey is omnipotent and should not be omnipresent. There is no one flavor that can be carried all through a meal. Honey, like other flavors, should be accentuated in its place.)

8. That Inklings be kept up to date and be a source of bringing together the various sections of the nation by having participation of the various states sometime during the year. Moreover, that advertising material be put into Inklings and that the yearly report be limited to the report only.

9. That an effort be made to give service to the packers.

10. That if feasible the Institute feature a poster contest encouraging boys and girls to participate. (At this point I might mention that it is a question in my mind whether food contests are worth the effort and expense involved.)

Our records show that last year there were but 82 individual eitries and that one person made 19 entries which accounted for the large display and the people who entered were mostly from beekeepers' families. This year when 50,000 entry blanks were sent out there were but 123 individual entries.

The manufacturers have been called upon to donate too much money for too small returns. I am wondering whether a poster contest through the schools might not give us a poster that we could be proud to exhibit.

11. That a key man or woman in each state be selected to aid in carrying out special programs.

12. That the Institute be open to recommendations and innovations at all times.

Institute Finances. It is pleasing to report that the Institute has come through the past year in good shape financially. Because of the short crop of honey in 1937, the receipts during 1938 were not as liberal as usual. Due to the very able management of the Finance Committee, expenses were reduced and activities somewhat curtailed. The report of the financial secretary showed that on December 1, 1938 all current bills had been paid and a substantial sum remained on hand. A full statement will be made in the annual report of the Institute on January 1.

Funds Needed. Although there is a balance in the treasury of the Institute at this time, the amount is not as large as a year ago, nor is it sufficient to operate normally through the lean months from April to July when beekeepers are busy in the field and thinking of other matters. Because the movement of honey and the condition of the markets demands that the work on honey promotion continue and be accelerated, everyone interested is urged to send in their contribution or their pledge **NOW.**

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port that whatever misunderstandings and differences there may have been about the Institute, they were ironed out to the satisfaction of everyone at New Orleans. The setup is practically new throughout. Of the entire staff placed in office a year ago, only two remain. These two are members of the Board of Directors whose resignations were refused by other members of the Board. It is gratifying, too, that the new personnel in charge are nearly all well known to the beekeeping public and enjoy the confidence of the industry at large.

With a new setup in the office, new directors, new committees, new energy and renewed determination, **Let's go. On with the Institute.**

—ABJ—

Southern States Conference

In historic Charleston, South Carolina, in the beautifully located Fort Sumter Hotel, was held the annual meeting of the Southern States Beekeeping Federation, November 28 to 30.

The attendance of the meeting was reduced to some extent by the fact that this Federation meeting and that of the Institute and League were both held separately in the South this year, yet the meeting at Charleston was one of the finest and most well-balanced of any the writer has attended for some time.

Ned Prevost had spared no efforts in his arrangements. His state beekeepers had cooperated fully, the location was very desirable, the weather fine, and the program and discussions not only interesting but of value.

President A. H. Ezell, of the South Carolina Association, and his officers must be given credit, with Mr. Prevost, for the turnout of local beekeepers as well as for the appointments of the meeting.

Dr. D. W. Watkins, Director of Agriculture at Clemson College, discussed some of the early history of beekeeping and particularly the importance of beekeeping in the agriculture of today. Diversification especially in small farming, makes for a more stable condition. Beekeeping, through honey production and fertilization, fits desirably into the picture.

This was evidenced also by two speakers, David S. Blackwell, of the educational division of the Civilian Conservation Corps, and Dr. L. S. Wolfe, of the Rural Rehabilitation division of the Federal Farm Security Administration. Both of these organizations are meeting with some success in their efforts to make the small farmer independent.

George H. Rea. extension specialist in beekeeping for New York, told how New York fruit growers had become surprised in late years by the extremely poor pollination of some of their tracts and had been able to greatly increase their production through the judicious use of bees. Most orchardists prefer renting their bees for the duration of the bloom rather than go into beekeeping themselves. Mr. Rea said, "Bees are an insurance policy for the food supply of the American people, through their importance in pollination."

In such pollination studies as had been conducted, Mr. Rea considered the overwintered colony best, the comb package or larger package next. Difficulty seems to be encountered in getting the smaller packages to give the pollination effects desired, owing to the often inclement weather at the time of receipt and the time of bloom.

M. G. Dadant called attention to the great change in natural forage for bees, its disappearance through cutting of our forests and through changing agriculture. While the present reforestation program will have some desirable effect, beekeepers should be alert in a study for new honey plants which will fit into the agricultural scheme. The tests being carried on by Frank C. Pellett, in cooperation with the Iowa Agricultural Department were explained.

E. G. LeStourgeon impressed upon the group that a good way to bring honey plants back was to work through your agricultural and road departments in having recommended for home and roadside plantings such trees and shrubs as are honey producing as well as ornamental.

F. B. Meacham, of the Agricultural College at Raleigh, North Carolina, gave some of his experiences with superstitious practices in connection with bees in the mountain sections. Mr. Meacham recommends beekeepers to use more care in rendering beeswax from combs. Much of the wax is now lost owing to poor methods used. Mr. Meacham has conducted careful observations on Carolina honey plants and their yield and range. For wintering in this area he considers packing desirable.

Maryland is the link between the clover and southern honey sections, according to George J. Abrams, who is in charge of beekeeping in that state. Maryland now has efficient inspection and extension work in beekeeping, and an economic study of beekeeping in Maryland is being made.

For those from outside the state,

E. S. Prevost explained the three topographical areas of the Southeast and their relation to beekeeping and honey yields—the Piedmont section where the sourwood and poplar abound; the sandhill section which has a carry over of these plants as well as a few of the coastal plants and a number of honey producing shrubs; and the coastal section with its gums, tupelo, gallberry and fall flowers.

M. J. Deyell suggests that perhaps a part of our losses in supersedure might be obviated by using a larger package, which would allow the queen to continue egg laying without interruption. Supersedure seems to lessen where the queen is well fed on pollen and nectar from her introduction into the hive.

Mr. Bishop, of Sears, Roebuck and Company, offered his cooperation for beekeepers of the Southeast through their market places for giving the potential customer the opportunity of tasting and selecting the honey which he might prefer, because, as he said, while you might win a first sale with the eye, never could a second sale be made unless the taste approved.

Robert E. Foster, of Florida, stresses good locations, good queens, good combs, plenty of stores, and ample room for brood and nectar as the five requisites for success. Dr. David Dunaven illustrated his lecture on honeybee anatomy with lantern slide projection. L. E. Smith, new state apiarist for Tennessee, spoke briefly on conditions in that state.

George W. Bohne gave his impressions of the scope of the work that might be accomplished by the American Honey Producer's League. E. J. Anderson, of Pennsylvania, explained some of the marketing plans being evolved in that state. Weights and measures applying to honey were discussed by Mr. Jones of the South Carolina Agricultural Department.

The recommendations of Mrs. Harriet Grace we think sufficiently important that we propose to publish them separately in this Journal. The American Honey Institute should continue to function to the betterment of beekeeping if her dream of accomplishment can be fulfilled.

The bee marketing agreement was discussed with Mr. Wann, of the Agricultural Adjustment Administration. Report of this as well as the hearing at New Orleans is published in another column of this magazine.

Vicksburg, Mississippi, was selected as the meeting place for the Southern Conference in 1939, where the local Chamber of Commerce as well as the Delta Beekeepers' Association promise everything outstanding in the way of arrangements and outside attractions.

M. S. Fortune, of Mississippi, was selected as president for 1939; A. V.

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Dowling, of Georgia, the efficient secretary, continues in that capacity. ON TO VICKSBURG IN 1939.

— o —

Kentucky Annual, Lexington, January 23.

The annual meeting of the Kentucky Beekeepers' Association will be held in connection with the Farm and Home Convention meeting at Lexington during the week of January 23rd, 1939. Deviating somewhat from the practice of the past two years when the discussions were spread over three half days, the program this year will be held on one day, January 26. Assisting with the program will be James I. Hambleton, Senior Apiculturist, Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture; L. E. Gooch, Nicholasville, President of the Association; and the members of the staff of the College of Agriculture, University of Kentucky.

W. O. Price, Secretary.

— o —

Delaware Association, Camden-Wyoming, January 14

The second annual meeting of the Delaware State Beekeepers' Association will be held at the Caesar Rodney School, Camden-Wyoming, Delaware, on January 14, 1939. The program will feature Professor George H. Rea of Cornell University as guest speaker. He will discuss two topics, "The Use of Bees for Orchard Pollination" and "The Two-Story Hive and Its Possibilities." The Association had a membership of 70 during 1938 as compared with 53 during 1937, the first year of its existence. It is hoped that representatives of beekeepers associations in nearby states will find it possible to attend the forthcoming meeting of the Delaware Association.

L. A. Stearns,
Secretary-Treasurer.

— o —

Illinois Beekeeping Short Course, January 9-13

In connection with the Annual Farm and Home Week Program at the University of Illinois during the week of January 9 to 13, Illinois beekeepers and those from neighboring states will have the opportunity to attend a short course on beekeeping subjects. The beekeeping program will cover Tuesday, Wednesday, and Thursday of the week and will be under the direction of Doctor Milum of the beekeeping department of the University.

Talks will be given by Doctor Milum, Carl Killion, state bee inspector, Wesley Osborne, O. G. Rawson, R. H. Dadant, Hoyt Taylor and L. R. Stewart from Indiana. They will be on such varied subjects as honey plants, bee diseases, marketing comb and extracted honey, beeswax production, winter packing methods, and many others.

During the same week there will be on other parts of the campus talks on dairying, poultry, agronomy, horticulture, almost all phases of farm work. You'll find plenty of time to attend any of the sessions you find interesting.

— o —

Ohio Winter Meeting, January 30, 31, February 1, 2.

The winter meeting during the Farmers' Week at the Ohio State Agricultural College will be held on above dates. Monday and Tuesday evenings, and Thursday afternoon will be taken up by the Ohio State Association program. Tuesday Wednesday and Thursday forenoons will be for a short course in beekeeping.

Arrangements are being made to secure out-of-state speakers including Dr. E. F. Phillips, Dr. C. L. Farrar, Robert Simons, Kroger Baking Co., and others. Special emphasis will be placed on grading for honey, distribution and merchandizing, marketing problems, cooperative marketing, and other equally important subjects.

The banquet is on the evening of February 1. Dr. Ernest Kohn, Grover Hill, Ohio, is toastmaster. Plenty of fun.

W. E. Dunham, secretary.

— o —

Pennsylvania Association, Harrisburg, January 18 and 19

Wednesday — "Some Satisfaction Derived from Keeping Bees," Roy H. Herr; "Report of Apiary Inspection," Wm. M. Glebe; "Management and Results from Package Bees for Honey Production," Dr. W. E. Dunham, Ohio State University; election of officers; "Hints on Marketing," E. J. Anderson; "Cost Factors in Honey Production." Dr. Jas. I. Hambleton, Bee Culture Office, Washington, D. C. 6:30 P. M.—Banquet; "The Ohio Two-Queen System for Honey Production," Dr. W. E. Dunham; "Work at the Bee Culture Laboratory," Dr. Jas. I. Hambleton; motion picture on pollination, Dr. Dunham.

Thursday—"Production and Sale of Honey in Tioga County," Walter Doud; "Production and Sale of Honey in Erie County," Elmer E. Root; "Back-Lot Beekeeping Made Profitable," Dr. W. E. Dunham; "A Search for Bees Resistant to American Foulbrood," Dr. Jas. I. Hambleton; "Easy Ways of Using Home in the Home," Mrs. H. M. Snavely; Demonstration on Using Bag Wrappers for Comb Honey, A. T. Keil.

Crop and Market Report

Compiled by M. G. Dadant

For our January Crop and Market page, we asked reporters to answer the following questions:

1. How is the crop moving?
2. Are retail prices holding up well?
3. What are jobbers offering for white extracted?
4. Any comb honey available?

How is the Crop Moving?

In practically all sections, the crop is moving in a satisfactory manner as far as retail sales go. As a matter of fact, we believe that the retail distribution of honey is far in excess of what it was any year during the past five years. And the rate would be considerably accelerated if the weather had been colder during the fall season. As one reporter expressed it, "It is not cold enough for pancakes and honey."

The reason we say that retail sales have been heavier is that many moderately sized beekeepers finding difficulty in disposing of their honey in a lump have worked their local markets extremely hard and in fact in great competition against each other. This has made, we believe for better featuring of honey in the stores and very much greater amount of sales direct to consumer.

We find the honey moving very satisfactory in the New England states, fairly well in New York and Pennsylvania, and extremely well throughout the entire southeast and south as far as Texas.

Retail movements have been satisfactory in all the rest of the territory but the sales to jobbers have been lighter we believe during late November and early December than they were earlier.

As this is being written, there seems to be a tendency again to look around for honey at sacrificed prices if possible, indicating that perhaps the buyers will be much more in the market after the holidays than they were immediately before.

Some producers are already sold out in a retail way and are having to buy to supply the demand. This particularly seems to be true in the southwest and south and in the plains area wher the crop was comparatively short.

Are Retail Prices Holding?

The crop was not excessive this year but retail prices are holding satisfactorily. We might say that they are holding moderately well in all areas except the heavy producing area of the Central West and extending as far as New York and on the west to the plains states.

There seems no object in prices being cut in the intermountain territory inasmuch as there is only a certain amount of retail trade to be gotten and there is, of course, always an excess to be disposed of.

Our readers should not infer that there is not a softening of prices over last year. We believe there is in most sections, but that there is much less tendency toward any softening in the areas where the crop was short and where the beekeepers find themselves in the position of disposing of their 1938 crop without having to resort to any cut prices. It is also true that in many of these areas, the consumers are used to native honey and that it would be difficult to ship honey in on a cut price basis which would really compete with the honey they are used to. Herein lies one advantage of limited production of honey of such varieties as sourwood, orange, tupelo and gallberry.

Jobbers' Offers

Most reporters state that jobbers are not making any offers to amount to anything on honey but there are reports, however, of carloads being sold and some at a very fair price. We learn of one carload of Michigan honey selling at 6 cents f. o. b. station and several similar lots throughout the Central West at 5 cents f. o. b. shipping station.

In fact, if there is any stabilized price, it would be around 5 cents f. o. b. shipping station for good white honey.

There are, of course, many offers at a reduction over this price but they are not generally being taken and only occasionally a distressed lot is moving at a lower figure in the central western area.

Intermountain honey particularly from Idaho southward is moving very slowly if at all due to the fact that the intermountain producers are not feeling in a position to take a price which would compete with the central western area which is still more or less glutting the central western and eastern markets.

The amber honeys of California are going at a relatively low price. Similar conditions apply in Arizona.

However, the honey crop, we must remember, in all of these western areas, was far below a year ago so that any tendency toward a more rapid movement of honey in the eastern half of the United States will very readily show itself in the reduction of stocks in the western areas.

To the beekeeper who is forced to sell his honey, the present is, of course, an unfortunate time to sell inasmuch as prices are considerably lower than they were at the beginning of the season and probably are lower than they will be a month or two hence.

Comb Honey Available

While some of our reports indicate that comb honey is available particularly in the central western areas, in the country as a whole, there is almost a scarcity of comb honey. We believe that the comb honey producer, if he wants to look around a bit, should be able to sell all of his comb honey at a price which should realize him from $2.75 to $3.00 per case. In spite of this fact, we learn of many sales being made at much less figure and comb honey being distributed in the retail markets in many instances at 12½ cents per section and in some cases as low as 10 cents.

We are inclined to believe with comb honey at least that it is not by any means an overproduction but rather an underproduction and that the difficulty lies now in lack of proper distribution methods or possibly in some instances lack of activity on the part of the producer in seeking his markets.

We learn of one carload central western comb honey being moved into California which would indicate that comb honey production in that state has fallen off to a negligible quantity during the last few years.

We wonder if there will not be a tendency to revert back to comb honey production or at least to cut-comb honey in the next few years if the production of extracted continues as it has during the present year.

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WANTED—to hear from owner of farm or unimproved land for sale. WM. HAWLEY, Baldwin, Wis.

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CARTONS for Cut Comb Honey. New attractive designs with your name and address. Low prices. Fast service. Samples on request. May Carton Co., Box 257, Traverse City, Mich.

Beekeeping Program, Farm and Home Week, Kansas State College, February 9.

Details of the beekeepers' program during Kansas Farm and Home Week at Manhattan are being prepared with an interesting program for beekeepers. Kansas beekeepers keep this date in mind. Full details of the program will appear in the January issue.

R. L. Parker,
Kansas State College.

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Idaho Honey Producers' Meeting

The Idaho Honey Producers' association members held an enthusiastic and most successful two-day convention here November 18 and 19, with more than fifty beekeepers of the Gem State on hand for discussion of problems of their industry.

The sessions were presided over by J. J. Lockie, of Shoshone, president, assisted by Earl J. Miller, of Blackfoot, vice president, and D. B. Bradshaw, of Wendell, secretary-treasurer.

"More attractive packages and a better flavored product is widening the market for the honey output of Idaho's bees," said Mr. Bradshaw. "From year to year the Idaho industry is finding a widening market for its product. The state has long been known for its fine flavored honey, largely because bees in the territory feed entirely on clover—thus producing a milder flavored product.

"With the use of more attractive methods of packaging," he concluded, "the demand should and is increasing still more."

Bradshaw said lower freight rates were vital to the finding of increased out-of-state market.

Sam Nealey, of Aberdeen, was elected president of the association. R. E. Miller, of Twin Falls, was named vice president, and Frank Beach, Jr., of Burley, secretary-treasurer. A legislative committee was named to include Roy Rabbitt, of Caldwell, Clyde Gault, of Buhl, J. Redfield, of Idaho Falls, Dan Stohrman, of Buhl and Kennedy Stewart, of Jerome.

Idaho Falls was chosen as the place for the 1939 meeting.

Glen Perrins,
Utah.

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Georgia-Florida Joint Meeting

The Georgia and Florida associations met in joint session in Valdosta, Georgia, October 26 and 27. President J. W. Cash of the Georgia Beekeepers' Association presided the first day, and President L. M. Dewey the second. Speakers from both states alternated on the two-day program and considerable interest was maintained throughout the entire meeting. Many out-of-state visitors remarked the lack of friction between the two organizations.

The meeting featured talks by prominent beekeepers, the usual business sessions, and a fish fry, which was attended by about 125 people. At the close of the meeting an additional session was held to entertain those who had to stay over.

J. G. Rossman, Secretary,
Georgia Beekeepers' Assn.

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Rockland and Bergen County Beekeepers.

A real felt need seems to have been answered by this young and ambitious organization located in a valley which was once the outlet of the lordly Hudson. Through upheavals of mantle rock and due to glacial action, this river is now confined within the rocky folds of the Gibraltar--like Palisades. We feel a real pride for our incomparable locality, and getting to know one's own neighbors affords a real thrill. The land hereabouts is generally high and composed of rocky soil. Careful methods of agriculture enable one to secure bountiful harvest, when Nature is gracious. Nowhere else do the fruits taste quite so good; nowhere else do vegetables contain as high a vitamin content as those grown here.

The valley is populated by a home-loving group of retired business men, commuters to the metropolitan area, and by resident agriculturists, and interest in beekeeping as a hobby has made gratifying progress.

About eighty members and friends were present at our meeting on October 15, held at the home of Henry Behnke, a member of the New Jersey Board of Farm Supervisors, on lower Spring Valley Road, Hackensack, New Jersey. The New Jersey state bee inspector, Mr. Holcomb, made a hive inspection. Other speakers on the program were Messrs. Stone, Essex County Farm Bureau agent; Thrann, president of the Essex County Beekeepers' Association; and E. G. Carr secretary of the New Jersey Beekeepers' Association, who gave encouraging and helpful comments on the splendid progress of our organization.

The membership at the close of the meeting was increased by twenty new names a gratifying response and an inspiration to the executive committee. In strength of numbers, we feel that much real good can be done.

John F. Hopf, Jr.,
Secretary.

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1- 10	$2.45	$3.10	1- 25	$ .75
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RAINBOW GLASS HONEY JARS

All with Caps	Weight	Carton
1-LB.—24 in carton	21-lbs.	81c
2-LB.—12 in carton	17-lbs.	55c
3-LB.—12 in carton	21-lbs.	60c

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The Postscript

Gossip About the Office in the Making of the Magazine

An Iowa friend calls attention to sumac bobs for smoker fuel. The seed clusters of sumac have often been highly spoken of for this purpose but there are few so situated that they can secure enough of them to keep the smokers going. In years past there has been much discussion of smoker fuel in this magazine but of late the subject is seldom mentioned.

———ABJ———

At the cooperative experimental apiary we use planer shavings for smoker fuel because they are so readily available in ample quantity. An occasional trip to the planing mill enables us to fill a big burlap bag with fine shavings, enough to last for weeks. With a bag of them in the honey house there never is any trouble about smoke. Formerly we used rotten basswood which makes a good smoke but it is not always easy to find the wood in the proper state of decay.

———ABJ———

Some interesting letters regarding the American Honey Institute have crossed this desk. With honey at present low prices our industry needs the Institute as never before. This is our one means of contact with the public and serves to place information concerning honey and its proper use before those who should be its users.

———ABJ———

Since Dr. H. E. Barnard, first director of the American Honey Institute, has held a similar position with the National Apple Institute, our readers watch with interest the activities of that organization. It is encouraging to note that apples have been able to secure the assistance of Organized Grocers and the Association of Food Chains in an effort to move the apple crop. Quoting the American Fruit Grower, "Marketing the 1937 apple crop was the biggest fruit marketing job ever tackled." This year apples are selling in our local stores at prices higher than oranges. Perhaps an appeal to the same source might bring similar help to the beekeeper. The sale of an extra hundred pounds of honey by each of the 37,000 stores of the largest chain would remove the present surplus completely.

———ABJ———

Occasionally a letter comes to this office to which the writer forgets to sign his name. When it contains an order for goods and especially if it contains money it is the source of embarrassment here. To find a dollar bill and an order for subscription in a letter with no means of locating the sender, leaves us wondering how long it will be before he writes to inquire why he has not received his magazine.

———ABJ———

The death of G. C. Lewis, president of the G. B. Lewis bee supply firm, removes another who has been prominent in the beekeeping ranks. How frequently are we reminded of the brevity of human life. Mr. Lewis was very retiring in disposition. He seldom attended bee meetings and kept his personality in the background in everything relating to the industry or with his own business. His intimates knew him as a very fine personality.

———ABJ———

From Fred W. Schwoebel, of Pomona, New Jersey, we learn that there is much unused bee pasture in the salt marshes along the Atlantic Coast where the sea lavender grows. Hives which he placed on a barge in August gathered honey of excellent quality, mild and pleasing flavor. It may well be that because it is rather inaccessible there has long been overlooked a substantial source of summer honey in the sea lavender. Beekeepers living in the vicinity of such salt marshes may well investigate this possibility.

The tidal marshes along the coast are periodically covered with salt water and larger areas offer no site for an apiary above the flood area.

Frank Beach, of Burley, Idaho, sends flower heads of the new strawberry clover which is being planted in connection with some of the reclamation projects. This clover grows in constantly wet soil and thrives along the irrigation ditches. He reports that thirty-five pounds of seed have been planted on the damp soil of the local golf course. Beekeepers in similar areas will watch with interest to see whether it proves to be a new source of honey in the irrigated regions.

———ABJ———

J. D. Winter, in Minnesota Horticulture, suggests the new Melana sweet clover as a cover crop in the orchard and as a white grub deterrent. The more uses they find for this crop the more bee pasture. It would appear to be well suited to the needs of the fruit grower who wishes a quick growing legume in his rotation.

———ABJ———

Young men looking for an opening where they can find a satisfactory career continue to ask whether beekeeping offers a favorable opportunity. Will bees provide the means of maintaining the modern standard of living? Is it better to specialize or combine bees with something else or should one look to beekeeping only as a hobby?

———ABJ———

So much depends upon the individual that no definite answer can be given to such questions. Many men who specialize in honey production are prosperous and do support their families as well as do their neighbors. On the other hand the man who diversifies his sources of income is in a safer position in times of stress. Every individual must provide his own answers as to what is best for him. However, we can point to the fact that as a class beekeepers have survived the depression in better shape than most agricultural classes and some have increased their holdings from capital provided by the bees during this period. On the whole we still feel great confidence in honey production both as a way of life and as a means of livelihood.

———ABJ———

For nearly thirty years I have been digging up plants in far places and bringing them home to naturalize in my wild flower preserve. Too often it happens that when finding something while traveling, there is no suitable tool with which to dig it up. Only now have I found a half size spade strong enough to serve any need and small enough to carry in the car as a regular item of equipment.

———ABJ———

My newest interest is to establish honey plants such as provided the pioneer on the prairie with a crop of honey. Most of these plants have long ago disappeared from this region except in small patches along the railroads and in out of the way spots. The newcomer on the prairies of the Midwest once secured good crops of honey from blazing star, hyssop, wild onion and a hundred other native plants which are all but unknown to present day beemen. To bring them together in the American Bee Journal honey plant test plots is a present objective.

———ABJ———

Mr. William Couse has attended the sessions of the Ontario Beekeepers' Association for fifty-nine years without a miss. It is doubtful whether any other beeman can equal this record for continuous attendance at the annual meeting of any organization.

I thought my record of attending twenty-five of the twenty-six meetings of the Iowa Association was pretty good but I have one miss in less than half the years covered by the Couse record. There is little chance that his record can be equalled but it would be interesting to know whether anyone else can report even forty consecutive meetings attended.

FRANK C. PELLETT.